FINANCIAL GIANTS of AMERICA

GEORGE F. REDMOND

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To my friend
Octave Chanute
with the wish & expectation
that he
May be a financial
Giant himself
Some day —
Sincerely
Frederick G. Bonfils

FINANCIAL GIANTS OF AMERICA

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Volume I

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John Jacob Astor
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Volume II

J. Ogden Armour
August Belmont
Andrew Carnegie
William A. Clark
Samuel P. Colt
William E. Corey
James B. Duke
T. Coleman Du Pont
Alexander R. Erskine
Henry Ford
Elbert H. Gary
King C. Gillette
Daniel Guggenheim
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Cyrus H. McCormick
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John D. Ryan
Charles M. Schwab
Quincy Adams Shaw
James A. Speyer
Louis F. Swift
Cornelius Vanderbilt
Sidney W. Winslow
William M. Wood
William Wrigley, Jr.

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FINANCIAL GIANTS of AMERICA

By

GEORGE F. REDMOND

VOLUME II

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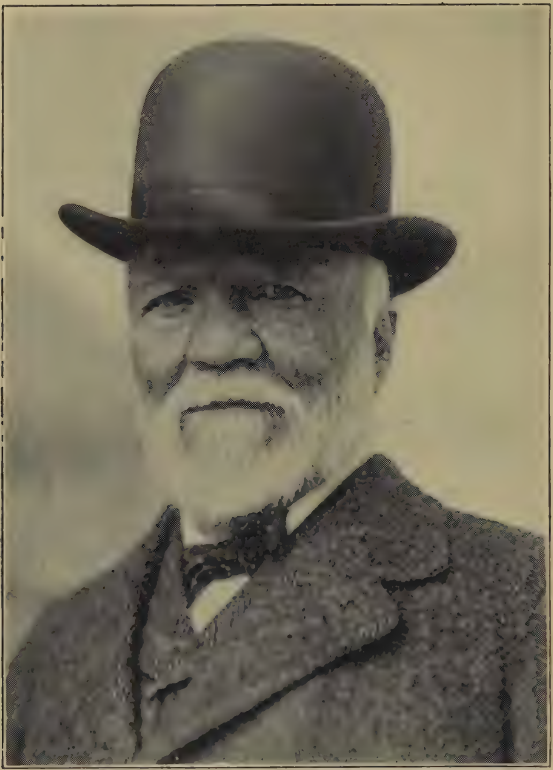
The story of Carnegie is the story of the growth and development of the Steel Age. Here is one of the Giants who has attained fame both in the making and spending of money.

The memory of Andrew Carnegie will live long through his generous gifts to libraries—longer than the steel made in his mills. All America pays glowing tribute to the little Scotchman who put Pittsburgh on the map.



ANDREW CARNEGIE

ANDREW CARNEGIE

THE most forceful personality which the steel industry of this country has produced was the late Andrew Carnegie. Carnegie's birthplace was Dunfermline, Scotland. He was an impelling force and a great leader in the iron trade of this country. Mr. Carnegie was without a peer in his lifetime in never-failing confidence in the steel industry and in the keenest comprehension of its needs.

Carnegie's father was a weaver, who, with his family, emigrated in 1848 to the United States. Beginning life without even the usual school education, young Carnegie worked in various humble positions in Pittsburgh, where he found employment in a telegraph office and obtained a footing in the railroad world. The basis of the immense fortune he was able to amass was due to his connection with the iron works which he established in Pittsburgh ,and which subsequently developed into the vast industry of the Carnegie Steel Co.

The Carnegie company in February, 1901, was, with a number of other manufacturing concerns, incorporated as the United States Steel Corporation, having capitalization of over $1,000,000,000. Carnegie at a critical period in his life, was aided by making the acquaintance of a Mr. Woodruff, inventor of the railway sleeping car. He was also helped by the fact that he was one of a fortunate oil syndicate.

The story of Carnegie's career and the vast wealth he has amassed reads like a romance, and to his honor be it said he has generously used his princely fortune. He endowed and founded public libraries, notably $500,000 for a library in Pittsburgh and $250,000 for a library in Edinburgh, Scotland, and $5,200,000 to erect and equip 80 public libraries in New York City. He donated $10,000,000 for creating the Carnegie Foundation, a trust fund to provide for college professors in the United States, Canada and Newfoundland, who from old age or other physical disability retire from active service.

He signalized his retirement from active business in 1901 by gifts of $5,000,000 for the benefit of his old employees. He donated to five Scottish universities the sum of $10,000,000 and a like amount to found a university at Washington, D. C., which was placed under the supervision of the National Government.

He also donated $5,000,000 for the benefit of those dependent on persons sacrificing themselves to save life, or for the heroes themselves if they were injured. He contributed largely to the endowment funds of educational institutions both in this country and in Great Britain and the capital needed to equip hospitals. He also made provision for a permanent building at the Hague for the international court of arbitration.

Carnegie did more than any other individual to replace dear iron with cheap steel. The fact that we can today buy as much steel for 10 cents as our fathers bought for a dollar is mainly due to him and his partners. Carnegie did for the steel world what street cars have done for transportation, what the 10c magazine has done for the periodical interests, what the penny paper has done for the newspaper business. Carnegie did not over-charge his generation. This would be a story involving billions, not millions, if we deal with the amounts saved by the buyers and users of steel.

Carnegie made strong friends and some enemies. What has been written of him has been invariably biased either by devotion or by dislike. For thirty-six years he remained unshaken in the control of his corporation, in the midst of plot and counter-plot. For twenty-five years he remained the world's steel master. Had he chosen to stay in business, and to carry on war against his competitors, he might have been an industrial dictator.

Carnegie was the friend of Sir Henry Bessemer, whose large profits were the wonder of European steel makers. In the first fourteen years of his steel-making in Sheffield, Bessemer and his partners had made 80 times their invested capital, 100% every two months. Carnegie, with $300,000 invested in 1873, had in 28 years cleared more than 800 times his capital. This was an average of 3,000% a year or 100% every 13 days. In 1894 he had become the richest man in

Pittsburgh, displacing Charles Lockhart, of Standard Oil, the little Scottish laddie who had at one time earned only 15c a day in a grocery store.

With the close of the 19th century the Carnegie companies were in the height of their prosperity. As the year 1900 closed there was $40,000,000 to divide, the greatest amount ever earned by any industrial corporation in legitimate competitive business. Carnegie got $24,000,000; Phipps got $5,250,000; Frick got $2,600,000; Schwab got $1,300,000. As for the young partners of Carnegie, they were well content with sums ranging from $50,000 to $850,000. The least of them received a presidential salary for his year's work. The Carnegie profits, from 1875 to 1900, were $133,000,000. No other steel mills, either in America or Europe, made such continuous series of big dividends.

The Carnegie companies formed the nucleus of the United States Steel Corporation, the world's greatest combination of capital. This company was organized under the laws of New Jersey in March, 1901. It was formed from 10 large corporations, each of which was itself a consolidation of several smaller companies. The capitalization represented nearly half of all the money in the United States. It represented one-sixty seventh of the total wealth of the United States in 1920.

The corporation when founded exercised direct and positive control of over 213 manufacturing and transporting plants and companies and over 41 mines in 18 states. One hundred of the manufacturing plants were in Pennsylvania, 51 in Ohio, 15 in Illinois, 12 in Indiana, 12 in New York and the rest were scattered from Connecticut to California. These mines furnished more than half of the total production of iron ore in the United States, four-fifths of the Bessemer steel and two-thirds of the national output of steel rails. It controlled 11,000 miles of railroads; a fleet of 112 vessels handling one-third of the tonnage on the Northern Lakes. By "community of interests" it controlled the anthracite coal fields of Pennsylvania, thousands of miles of railroad and an ocean steamship line.

Civilization owes a debt which it can never repay to Sir

Henry Bessemer, the man who invented the Bessemer steel process. From this process of making steel from pig-iron the greatness of the great steel industry as it exists today began. This which has immortalized the name of its inventor, "Bessemer," was patented in 1856. Sir Henry was born in Herefordshire, England, in 1813 and died in London, March 23, 1898. He is famed for many inventions, but it is for his revolutionary invention in the steel-making trade that he is best known. This invention consists in taking pig-iron when in a state of fusion and blowing a blast of air through it to clear it of all carbon, and then adding the necessary carbon to produce well-tempered steel.

The Bessemer process increased the output of steel enormously both in the United States and in England. In England the annual production at once rose from 50,000 to 3,000,000 tons, while the price fell nearly 80%. In the history of metallurgical inventions and discoveries, there is nothing to equal this record.

Before going further it is essential to set history exactly straight. While the world has given Bessemer the great reputation of the pioneer identified with the revolutionary discovery in the making of steel, it is only just to state that this claim was contested, and successfully contested by an American. William Kelly was in reality the first inventor of the process. Across the water it was called the "Bessemer Process," while here it bears the name of the "Pneumatic Process."

Kelly was born at Pittsburgh in 1811 and died at Louisville, Kentucky, in 1888. In 1847, while manufacturing iron, he discovered that for melted metal, air is fuel and other fuel is needless. He saw a white spot at the edge of molten iron in the furnace. At this spot the iron was incandescent and almost gaseous, though fuel was burning at this spot in the iron. Air alone was blowing on the spot. Now, air contains oxygen, iron, carbon, and carbon and oxygen have what chemists call an "affinity" for each other, Kelly knew these facts. Therefore he blew air in the melted iron, the oxygen captured and carried away the carbon, pure iron was left and modern-steel-making was invented.

In 1851 Kelly built the first converter and in 1857 the first tilting converter. Learning in 1856 that Bessemer of England had patented the process in America, Kelly convinced the Patent Office that he, "Kelly," was the real inventor, and received the patent. Five years later his genius was recognized and Englishmen themselves acknowledged that Kelly discovered the process before Bessemer. The Patent Office in 1870 renewed his patent, because he had not received sufficient remuneration, and in seven years he received $450,000 in royalties. He remained in business until over 70 years of age, when he died, known far and wide as "Pig-iron Kelly," and his process and our natural resources have made America the largest steel making country in the world.

But let us return to Mr. Carnegie. He soon built up a wonderful organization and out-classed all his competitors. He was always willing to learn and quick to learn. He had a composite mind, shaped by innumerable influences. One of the many good ideas which he adopted on the advice of that excellent iron-master, Captain Bill Jones, was that of giving special rewards for special service. In 1884 he greatly improved on the Captain's suggestion by taking into partnership four of his brightest young men—Curry, Moore, Boertranger and Abbott. Three years later this idea was made part of the Carnegie system. Young employes were presented with stock and allowed to pay for it out of their dividends.

In this way, when Carnegie found a competent man, he was able to grip him with "hooks" of steel. He was also able at the same time to command undeviating loyalty. By sharing of dividends he kept his partners in the traces pulling with might and main. He also made it a rule that anyone of the young partners could be compelled to resign by a three-fourths vote, so that there was a whip to crack over their hands to keep them steadied.

Says one of the young men at the time: "There never was a wiser plan, for it spurred us all on to do our best work. Of course, we were loyal to the man who did so much for us. I would have sooner cut off my right hand than have turned on Mr. Carnegie."

It was Carnegie's habit to watch the men and wherever one took a partner's interest in the business, he was made a partner. With only three exceptions his partners were taken from the rank and file, without any book education beyond what is given by the public schools. One partner first came to Carnegie's notice as a clerk in a linen store. Mrs. Carnegie wanted a certain make of linen, which was not in the market.

"I can have it made to order for you, Madam," said the obliging clerk. Mrs. Carnegie was pleased. "I see you are a Scotsman," she said.

"Yes, Madam," he replied, "I was born in Dunfermline."

Now Dunfermline was Carnegie's birthplace—his Mecca—his Holy City. The young clerk at once found favor in his eye. A place was made for him in the sales department of the steel works and before long he was neck-deep in the stream of golden profits.

George Lauder, whose share was about $17,000,000 when the Carnegie company was turned over to the United States Steel Corporation, was invited to become Carnegie's partner because he happened to know the meaning of the scientific phrase—"a modulus of elasticity." He had closed an order for steel for the great St. Louis bridge, and this phrase occurred in the contract. He explained its meaning and at once Carnegie insisted that he should become his partner. Lauder and Carnegie had been boys together in Scotland. Lauder's favorite name for Carnegie was "Neeg" and Carnegie's favorite name for Lauder was "Dodd," a Scotch nickname for George. Carnegie said: "Dodd is a balance-wheel." Lauder was one of the few in the company who had received a technical education and the younger men went to him for advice.

Thomas Morrison was a relative of Carnegie's. He became superintendent of the great Duquesne Works at 29 years of age, having started four years before as an ordinary mechanic. His career was brilliant, and there is no one in Pittsburgh who denies his capacity. Morrison made good.

Then there was A. C. Dinkey, whose sister married Charles M. Schwab, who proved one worthy of all his good fortune. His mother was left a poor widow with several small children. She was very ambitious for their future and, leaving the little village where they were born, brought them to Braddock so that the two boys could work in the steel mills. Young Alva Dinkey is remembered by the older steel workers of Braddock as a bright, round-faced boy who carried water for the furnace-men and was always asking questions. At 16 years he learned telegraphy at a little station near Braddock. Then he began at the bottom of the ladder in a machine shop, worked his way up, and left to learn the trade of an electrician. At 26 years he became general superintendent of Homestead, with 10,000 men under him.

Francis T. F. Lovejoy spent the first 27 years of his life running about from failure to failure. He was by turns stenographer, telegrapher, book-keeper, reporter, oil workman and driver of a laundry wagon. He got a clerkship of the Carnegie company and during the Homestead strike he successfully went through the fiery ordeal. The result was that at 37 he was admitted into partnership and at 47 he found himself one of the multi-millionaires of Pittsburgh.

There were at least 40 of these men, millionaire partners of Andrew C. Carnegie, when he sold his steel works out to the Morgan-formed United States Steel Corporation. Nothing like it was ever heard of in the world of finance. And up to that time there had never been such a princely philanthropist as Andrew Carnegie.

Andrew Carnegie's original investment in steel-making was $250,000. Twenty-seven years later he sold the Carnegie Steel Co. to J. P. Morgan for the United States Steel Corporation, taking $300,000,000 in bonds, nearly $100,000,000 in preferred stock and $90,000,000 in common stock. He took the bonds and left the stock for his 40 partners, who owned about 40%, while Carnegie owned about 60% of the Carnegie company. He accepted a first mortgage on about one-third of the company.

Carnegie was a little man physically. Only five feet, four inches tall, he was pleasant to meet. But he was the fastest, shrewdest money-maker, the greatest philanthropist, the most generous donor of money that ever lived. Had he been miserly, it is estimated by some that he would have left a fortune of not less than $3,000,000,000 when he died, instead "only" $30,000,000. He left less than Frick, Morgan, Hill, Harriman, or the Harknesses, Russell Sage, Hetty Green or John Jacob Astor. But had he been a miser, had he never shared his money with anybody, had he never rewarded faithful service, industry, initiative, brains, he would never have succeeded as he did.

The United States Steel Corporation is now 20 years old. A new generation of steel-makers has succeeded the Carnegie regime. This is the era of Gary and Farrell, the new school of corporation heads. Charles M. Schwab, the head of the Bethlehem Steel Corporation, remains as the representative of the Carnegie School. However, it is well to remember that it is the unexpected that happens in the steel world. Carnegie's axiom still holds that "Steel is always either prince or pauper." The Gary policy at the head of the great Steel Corporation is that of standardizing and stabilizing the industry. Still, there is a chance for a second Carnegie, unlikely as the outlook may seem to the old steel-workers of Homestead and Duquesne. One who had predicted 40 years ago a steel fortune of a quarter of a billion to the Pittsburghers would have been regarded as an unbalanced enthusiast. It is well to remember however, that the American spirit of independence and its disdain of finality, may prevent the formation of a perpetual dynasty of steel or any sort of monopoly.

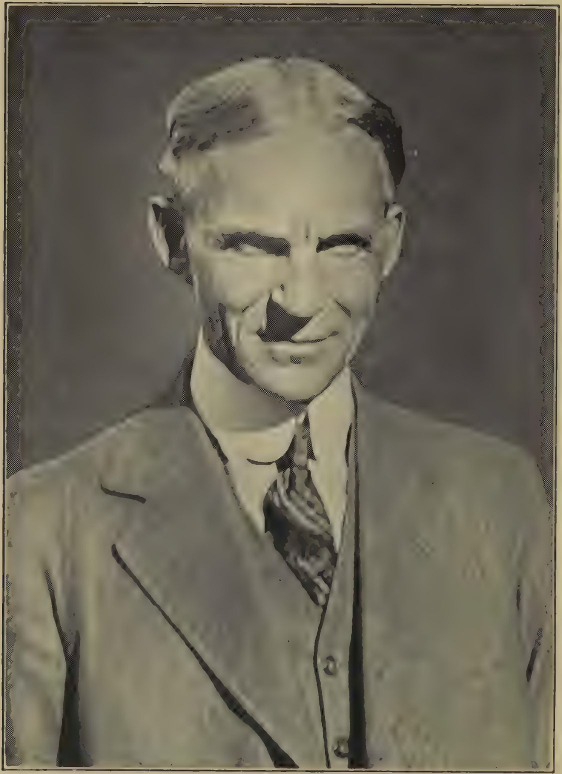
When Croesus, King of Lydia, showed Solon his golden treasures, Solon said: "If another comes who has better iron than you, he will take away your gold." The same warning may be given to our steel kings. As long as American workmen continue to think while they work, there may come some idea that will pull down the old dynasty and set up a new one.

The battle against conservatism and self-complacency is not ended. Three generations ago, when Kelly and Bessemer pointed out the path of millions in steel-making, they were treated like impertinent meddlers by the steel men of America and Europe. Sheffield sneered at Bessemer until Bessemer built a plant of his own and cut prices in half. Pittsburgh lost 28 years by its disdain of Kelly. When Carnegie was in England he saw the Bessemer process of making steel. The sight of iron being blown into steel fired his imagination. From that time on steel was to be his life work. Post haste across the Atlantic he organized the firm of Carnegie, McCandless & Co. The capital of $700,000 built a new steel plant which the canny Scot named the Edgar Thomson Steel Works, in compliment to the president of the Pennsylvania Railroad.

Then followed through kaleidoscopic moving picture swiftness the phases of Carnegie's career. He made frequent and spectacular trips abroad. Protected by a huge tariff on one hand and aided by railroad rebates on the other, profits were piled up thick and fast for him after the 1873 panic. In 1880 steel rails were run up to $85 a ton, the works were run 24 hours a day, and the year's profits exceeded $2,000,000. The following year the company reorganized as Carnegie Brothers & Co. with $5,000,000, of which Carnegie owned more than half. From then until 1888 the profits averaged $2,000,000, or 40%. Carnegie had rolled up a fortune of $15,000,000. As a partner died or dropped out Carnegie took over his interests in the concern. This process went along until only Carnegie and Henry Phipps, with whom he quarreled later, were left. Competing companies were bought out. Carnegie became undisputed steel king and Henry C. Frick's enormous coke properties in the Connellsville district of Pennsylvania were acquired by Carnegie in 1882. He and Frick were for years trusted associates. The combination lasted until 1899, when the two parted company.

Mr. Carnegie was the author of the following publications: "Around the World," "Triumphant Democracy," "The Gospel of Wealth," "Life of James Watts," "The Empire of Business" and "The American Four-in-hand Britain," together with many stimulating and informing articles contributed to the magazines and reviews of his time.

Mr. Carnegie died in 1919, and the world is a grievous loser by his passing. His desire to rid himself of his riches was no affectation.



HENRY FORD

They say he is the world's richest man today. He has a bank balance of $121,000,000 and rumor has it that he is the country's first billionaire. He is a man very much in the public eye. To have brought into being the countless "flivvers" he has made is Achievement and Success. He ought to be satisfied.

But he isn't. He has some big ideas. He has big projects, and everything points to the early fulfillment of his dreams and desires. He is a giant among giants, as this brief history will show.

HENRY FORD

HENRY FORD, the automobile manufacturer, the maker of the "flivvers," "tin lizzies" and all that, is the man most in the public eye today. Nothing is too original, too bizarre, too much of a departure from the beaten track for this mechanical prodigy, this political and economic freak, as so many people seriously declare him to be.

He astonished the world during the war by outfitting at his own expense the ship outfitted for the stopping of the war. He out-quixoted Don Quixote with a plan for getting the soldiers out of the trenches by the following Christmas, which would have been the biggest humanitarian and advertising stunt pulled off in a hundred years. But even though this venture was a failure and a farce, Henry Ford has continued to hold the attention of the public, and no man today — not even the President of the United States — gets preferred position on the first page of the metropolitan newspapers more often than does this really wonderful man.

His whole record seems magical. For example it was stated that he had discovered a compound called "Cottonoid" — a mixture of glue, cotton and formaldehyde — from which he would mould automobile bodies in the future.

He proposed to take over the great Muscle Shoals enterprise from the Government and operate it as a fertilizer plant.

It was reported around Wall Street that Mr. Ford was in serious financial difficulties and could not pull out. There were offers of "first aid to the injured," but Mr. Ford amazed the missionaries who called by declining their kind offers and showing them the door. He showed himself to be as much a genius in financial resource as in making an automobile. He outwitted the bankers of Wall Street and proved himself as much a financial genius as an industrial captain.

The saying of Emerson, "America! It is but another name for Opportunity," has never been better illustrated than in the career of Henry Ford.

Ford is something of an autocrat. Men like him are autocrats. But he is America's greatest mechanic, and he has visions, dreams, ideas. He is not a statesman, nor is he a philosopher. He is like one of his own locomotives. When it is on the track, it is supreme.

He wanted to make a lighter and cheaper machine and so he tried cotton. He planned a mixture that will make cottonoid — a durable, and serviceable material, out of which his vehicles may be made.

If he succeeds, he will be able to stamp out his auto parts the way a cook stamps out doughnuts. His idea may revolutionize the auto industry.

He, a pioneer in the manufacture of the light car, sees a day of even lighter cars. And he is sure that the day of the heavy car is over. Tomorrow it will be an interesting relic.

He believes that the day of the steel coach is nearly done, that it, too, is doomed to take its place among antiquities.

Somebody once thought of steel. And until Henry Ford, nobody has changed it. He now startles them by offering to make coaches out of cotton.

It is these unique radical ideas that have made Henry Ford what he is. Another man might go on for half a century, merely adding to or improving that which he had in hand. Ford makes an absolute departure if he thinks it expedient.

Years hence we may live in a cottonoid world, with cottonoid trains and houses. And perhaps cottonoid towns!

Within the past seven or eight years, with constantly accelerating momentum, the name of Henry Ford has become one of the most advertised and discussed in the nation. Abroad there is one name — that of Hugo Stinnes, of Germany — which compares with that of Ford's for frequency of mention. Both men are cussed and discussed industrially, financially, and every other way, turned inside out, speculated upon, philosophized upon, as to their motives, policies and aims.

For both Ford and Stinnes are men of mystery. The more they move and reveal themselves to the rest of mankind, the more they are regarded as mysterious. Today Henry

Ford is the prize puzzle on this side of the Atlantic. He has every man, woman and child of guessing age, guessing as to himself, what move he will make next, and what his plans and resources are. He is regarded on one side as a super-man, a miracle man, and the greatest benefactor of the race. On the other side are those who regard him as the most vainglorious and foolish of men. He is called on one side an idealist and on the other a self-advertiser.

But whether outfitting, sailing and maintaining his "Peace Ship" to Europe in the early stages of the war to "Get the boys out of the trenches by Christmas," putting into effect his plan of five dollars-a-day-every-worker; engaging in the railroad business and revolutionizing conditions there; engaging in the tractor business with the announced purpose of placing the farmers in possession of the land, leaving the producers free to develop; whether purposing to manufacture in quantities one-man submarines which would destroy the navies of the world; whether making an offer to the government to take over the vast Muscle Shoals enterprise, which has become a liability, and convert it into a vast utility for the manufacture of nitrates supplying the world with fertilizer; or whatever method he elects for appearing before the public through the press, it can be counted upon that Henry Ford will make good as his own press agent. He never fails to pique, interest and provoke curiosity on the part of the great masses of people. His latest suggestions are taken up by the newspapers in their news columns and editorialized upon, revealing that he holds the center of the stage.

Henry Ford is still a comparatively young man, on the sunny side of 60. He was born July 5, 1863, on his father's three hundred acre farm, at Greenfield, a few miles outside of Detroit. He early showed the distinguishing traits of his character, playing truant from church one Sunday to demonstrate to a young companion who had a new watch that he could take every wheel and screw apart and reassemble them. He built an engine, it is stated, out of odds and ends while still a schoolboy. Before he was 16, instead of attending school, he jumped on a train for Detroit and applied boldly at the works of James Flower & Co., manufacturers of steam engines, for a job. He received at first two dollars and fifty cents a week and engaged board for three dollars and fifty cents a week. In order to make up the difference, he prevailed upon a local jeweler to pay him two dollars a week for four hours' work every night. He worked from seven in the morning to six in the evening and then late into the night, leaving him about six hours sleep out of twenty-four hours.

He early proved himself to be a first-class mechanic, which has ever been his ruling instinct. His pay was increased to three dollars a week at the end of nine months. Later he entered the employ of the Dry Dock Engine Works, manufacturing marine machinery. He took a reduction of wages. Later his wages were doubled and he made five dollars a week.

About this time he planned the organization of a watch factory among the other boys of the Dry Dock plant. He demonstrated to the satisfaction of the boys that such an organization could be formed which would turn out two thousand watches a day at a cost of 37 cents each, to be sold for 50 cents apiece. And here we see the very first glimpse of his instinct for that quantity production — which distinguishes his great Highland Park plant in Detroit in turning out "flivvers" at the rate of a million a year at a price which was the despair of his competitors.

But the 50-cent watch works was never to start. At this time Henry Ford was called home to look after [illegible] farm on account of injuries to his father and the sickness [illegible] older brother.

In 1888, two or three years afterwards, Henry married Miss Clara J. Bryant, a neighboring farmer's daughter, and they settled comfortably in the 40 acre Ford farm.

About this time, while Henry Ford was on the farm, the coming automobile industry began to cast its shadows before. For centuries Old Mother Shipton's prophecy, "Carriages without horses will go," had kept tongues a-wagging. It was true that steam road vehicles had been used in England since 1865. However, it was not until 1893 that the modern horseless vehicle, including pleasure carriages, passenger coaches and freight trucks, began to be successfully developed. Since 1900 the manufacture, sale and use of automobiles has developed, and grown swiftly to be one of the amazing features of our time.

Henry Ford during his evenings studied things mechanical. While reading a technical magazine, he came upon an article describing a novel horseless carriage which a Frenchman had invented. The idea set his inventive imagination on fire. As a result he went to Detroit one day for materials to start the building of a vehicle which would excel that of the Frenchman. Detroit had recently acquired a fire-engine driven by steam. As fate would have it, it went roaring down the street at the rate of 15 miles an hour while Ford was returning to the station to take the train home. Ford was impressed with the clumsy bulk of the engine and put his thoughts to work upon a plan to improve upon it.

After much thought, he decided to utilize gasoline as motive power. But he found that a full knowledge of electricity was necessary in order to put his theories into practice. He had only a superficial knowledge of the mysterious current.

So to the amazement of the good folk of Greenfield, and in spite of the entreaties of his wife, Ford announced that he was going to Detroit to get a job.

We next find him and his wife in a boarding-house in Detroit. Ford then made application to the Edison Electric Light & Power Co. for employment. At the time of his application, there was an engine in a sub-station which had [illegible] and the engineer in charge could not manage it. Ford [illegible] asked if he could tame the balky machine. He said nothing except to ask for a trial. Almost in a twinkling he had the engine running smoothly. The result was that there and then he was engaged as night engineer at $45 a month. But in six months his mechanical ingenuity manifested itself to such an extent that he was brought to headquarters as manager of the mechanical department at $150 a month.

While with this company he introduced the eight-hour-day for the men of the shop while continuing to work at least twelve hours himself. And so he worked nights, often by the aid of lantern light, and built a modest home and a capacious shop to work in as well. There he settled down to construct his gasoline-driven carriage. In this workshop the unknown mechanic perfected his engine, renouncing all social diversions. His mind concentrated upon the one idea of building an engine that would revolutionize transportation.

Months passed and then one night, long after midnight in a downfall of rain, Henry Ford backed his machine out of the shed and down Edison Avenue, with his wife pacing him on the sidewalk. Several blocks he crawled along then stopped, got out, pulled and tugged at the machine to get it turned around, and then drove it back in triumph to the shed. That was the first Ford car.

For the next eight years, which brought him close to the opening of the present century, Henry Ford went on patiently experimenting while he held his job at the Edison works. He realized that he must spend much time in devising improvements in his invention before he could think of giving up his job. His wife having returned for a stay with her mother, Henry was obliged to do his own housekeeping. At night, after having worked on his engine for hours, he would ride down to an all-night lunch wagon in the city kept by a friend named "Coffee Jim" for a sandwich and cup of coffee. The two men became close friends.

By this time automobiles were beginning to come into vogue. There were in 1901, 26 motor cars imported into the United States. There were at the close of 1907 in use in the United States 1,750 pleasure motor vehicles and 1,800 commercial vehicles. These were expensive, luxurious things, appealing only to the rich. Ford's idea from the very beginning was to make a car for the man with an ordinary income. He succeeded in devising a two-cylinder engine which worked splendidly. With this he built a real car and rode it about the streets of Detroit to advertise it and to seek to interest capital with which to become an automobile builder. But there was no capitalist who would risk backing the venture.

Finally "Coffee Jim," the proprietor of the all-night lunch wagon, came to the rescue and financed Ford, which enabled him to give up his job at the Edison plant and build a car to compete at the automobile races at Grosse Point. Ford had his little two-cylinder racer ready and found that he had to compete with Alexander Winton, a famous champion. The result was that the little Ford car shot round and round the track and won. Ford awoke and found himself famous next morning as an automobile maker.

From that time on Ford and his car and his little workshop were in the public eye and they have continued to be until this day. Here it was that Ford had his first clash with the capitalists. They were willing to invest in his company, but wanted to build motor-palaces costing thousands of dollars. But Ford had in his mind an automobile factory where cars could be turned out in quantity at a low cost exactly along the lines of the watch factory of his boyhood day dreams. So there was no automobile factory erected at that time.

Then there were several men of modest means who became interested in Ford and his plan and enough capital was furnished to build a car to startle the world at the next race. Barney Oldfield was induced to drive it, and for this race Ford constructed a four-cylinder machine that developed eighty horsepower. This car with Oldfield had defeated his nearest competitor in a three-mile race by half a mile. This exploit brought Ford into fame and with it the necessary capital to form a company. In this company Ford was made vice-president and general manager. His salary was $150 a month. Again the clash came. His new backers wanted to manufacture expensive cars and make a profit of two or three hundred per cent. Ford would not budge an inch from his plan to make cars to meet the pockets of people with small earnings. So the venture was doomed to disappointment and Ford, by this time over thirty years old, was left with a wife and child to support without capital or a job.

James Cousens, the present Mayor of Detroit, with one or two others stuck to Ford. Money enough was scraped together to rent a large shed, and hire a couple of workmen, and buy enough material to start to make a few low-priced cars. There was actually $15,000 paid in, although the company was capitalized for $100,000. Ford and his mechanics worked literally day and night. Before long he was employing 40 men and was ordering materials by car-loads. He was soon selling at the rate of 1,000 cars a year, the price of the car being $900. Then Ford conceived the idea of breaking the world's speed record with a new four-cylinder car. He drove himself his new car on frozen Lake Sinclair a mile in thirty-nine and one-fifth seconds and beat the world's record by a margin of seven seconds. This feat advertised the Ford car so well that it brought orders to keep the works busy throughout the following year. It was just on the eve of Christmas. Ford returning to the shop after this amazing performance was informed that there was not a dollar in the till to pay the men's wages! He made a clean breast of conditions to the men as they came flocking into the office for their pay. He proposed to them that if they would stand by him, everything would be all right, but in case they deserted, the jig was up. Every man pledged his loyalty to Ford and the manner in which Ford cars were turned out during the following days was astonishing. Thus was the corner turned.

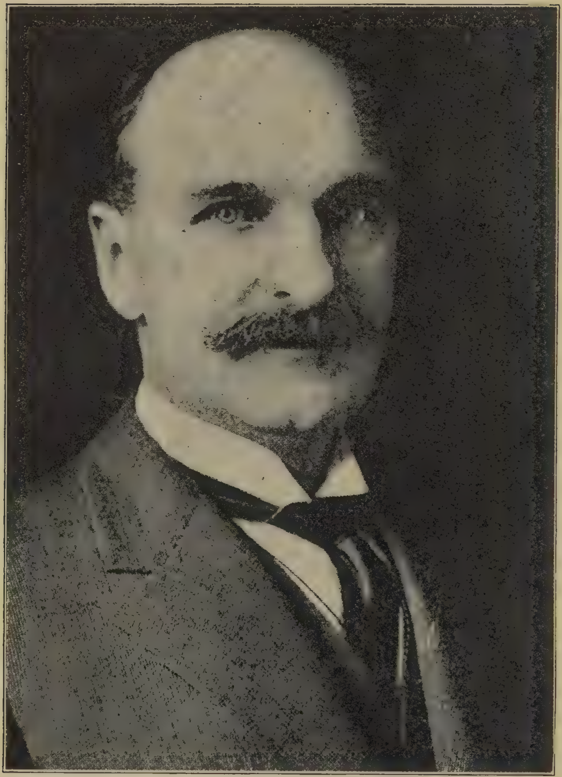
Then came, in January, 1914, the first of a series of announcements by Mr. Ford which upset the social and economic world. He proclaimed that he would pay all his unskilled workmen a minimum of five dollars a day and would furthermore reduce their working time from ten to eight hours a day. This resulted in a tidal wave of job-seekers. The mob invaded Detroit, the police were powerless and the fire department had to turn out and charge the mob with volleys of water. There were representatives of fifty-five nationalities, each speaking his own tongue, employed in the Ford works.

However, the plan, revolutionary as it appeared, and the subject of much heated discussion the country over, worked well in practice. During the month of February, 1914, under the new plan, less than 16,000 men, working only eight hours a day, made 26,000 cars against only 16,000 cars made by the same number in the previous February, working ten hours a day. This was an increase of ten thousand cars a day and proved Henry Ford to be right.

From 1915 on the Ford plant has grown by leaps and bounds. The profits of Mr. Ford that year were computed at thirty-five million dollars. The Ford plant in Detroit is the showplace of sightseers, and thousands visit it daily. It is the greatest industrial wonder of modern times. There are large branch factories throughout the United States, and in Canada, England and Ireland.

Today Henry Ford brings his own ore from his own mines, smelts it in his own furnaces, moulds it in his own foundries, forges it in his own works and fashions the Ford automobile complete, becoming as far as possible sufficient unto himself. "The Universal Car" is known in the four corners of the earth and of the ten million automobiles registered and running in this country, at least four million of them are Fords.

The poor mechanic of twenty-five years ago has produced the greatest selling automobile in the world, revolutionized the system of transportation, played havoc with all preconceived ideas of labor and industry, and made his name literally a household word.



T. COLEMAN DU PONT

The life of Senator du Pont is a notable one. Whether as a mining engineer, a coal mine operator, a steel man, a street railroad builder and operator, a highway constructor, a hotel landlord on a big scale, an enthusiastic trustee of the Massachusetts Institute of Technology, the builder of the largest office building in the world, the man who in middle life took up the fortunes of his family name in powder manufacture, as United States Senator or as a farmer on a gigantic scale, breeding the finest draft horses and herds of registered cows, pigs and sheep, his life is full of action. His career is an inspiration to American youth.

T. COLEMAN DU PONT

THE life story of United States Senator General T. Coleman du Pont is of more than passing human interest. Most people associate General du Pont with the celebrated du Pont powder family, of Delaware. But the fact is that there got to be too many du Ponts in Delaware, and, it not being an over-large State, the father of General du Pont went south in search of increased opportunities. That is how General du Pont happened to be born in Louisville, Kentucky. His father was an engineer and had done fairly well in Kentucky on his own account. The General decided to follow in his father's steps, and become an engineer.

He studied at Urbana University in Ohio and at Chauncey Hall in Boston, finishing off at the Massachusetts Institute of Technology.

It was not until 1900, when the General was nearly 40 years of age, that he entered the service of the powder company, after having practiced successfully as an engineer. He says of this turning point in his history:

"I was regarded as a successful engineer, but had not made much money, so I came East and associated myself with my cousins of the E. I. du Pont de Nemours Powder Co. All during my life I had kept quite closely in touch with my kinsmen, who had been carrying on the 100-year-old industry of the family, but had not participated in the operation of that company until long after I had attained success for myself in the West. At one time there was a board of directors of the powder company upon which there were 13 du Ponts. Another time there were eight.

"Back in 1889, I married my cousin, Alice du Pont, of Wilmington. Later I became the president of the powder company, a position which I held for some 15 years, at which time I decided that its management should go into younger hands, and so shaped events to that end."

Coleman du Pont is a man who has done things. He comes from a family which has been distinguished in both France and America. He is a doer, rather than a talker. He rose as a result of his own efforts to be head of a Kentucky coal company and upbuilt Central City, Kentucky, making it a place where working people wanted to live. He became the head of other coal companies and is still largely interested in them. He succeeded both as a steel man and as a street railroad builder and operator. Then he took the lead in making the du Pont Powder Co. one of the most efficient and prosperous enterprises in the United States.

The family has always been clannish. It has preserved its individuality for over a century in this country in the manufacture of powder ammunition and when it became necessary to make new arrangements for the expansion of the company, a member of the family who had removed to another section of the country, was called in to take the helm. This is how General du Pont, after reaching 38 years of age, and making his fortune in another field, was invited to be the head of the family. He accepted the invitation.

Charles Schwab not long ago stopped at Senator du Pont's hotel in Washington and at 6 o'clock the next morning he was seen to enter a modest restaurant next door and sit upon a stool for his coffee and toast. Senator du Pont who rises at 5 a. m., often does the same thing.

The life of Senator du Pont is a notable one. Whether as a mining engineer, a coal mine operator, a steel man, a street railroad builder and operator, a highway constructor, a hotel landlord on a big scale, an enthusiastic trustee of the Massachusetts Institute of Technology, the builder of the largest office building in the world, the man who in middle life took up the fortunes of his family name in powder manufacture, as United States Senator or as a farmer on a gigantic scale, breeding the finest draft horses and herds of registered cows, pigs and sheep, his life is full of action. His career is an inspiration to American youth.

Coleman du Pont has in him the stuff of which real men are made. He is an all-around athlete and is capable of holding a man's job in any walk of life. He worked seven years for the Central Coal & Iron Co. and at 30 he went to Johnstown, Pennsylvania, to engage in the steel business as general manager of the Johnson company. He made good in every position he held and because of his constructive efforts to keep working people, he became endeared to those under him. By the time he was 38 years old, working along constructive lines, he had made a fortune entirely by his own efforts. His extraordinary energy, executive ability and financial skill aroused the interest and admiration of his relatives back in Delaware and that is why they invited him to take the presidency of the powder factory. Its management was one of his hardest tasks, but he brought to it a measure of ability which would have succeeded in any industry — in any country. Success here was due to ceaseless industry. He mastered the powder business in all its phases, expanded its activities to many other industries, each served from the by-products of powder.

Serving at Central City as superintendent, he was largely instrumental in developing the Central Coal & Iron Co. into an extensive enterprise. The village of Central City, with but one general store and less than ten straggling dwellings when he went there, he transformed into a prosperous industrial town with a population of 7,500 with model dwellings for its working people.

When General Coleman du Pont in July, 1921, accepted at the hands of the Governor of Delaware the United States Senatorship, he revived interest in the Washington "Millionaire's Club," for he became the richest man in that organization. He is said to be the richest man in the nation with three exceptions — John D. Rockefeller, Henry Ford, and the Secretary of the Treasury, Andrew W. Mellen. These men are said to be the only men in the United States who out-rank Coleman du Pont in wealth. There are other multi-millionaires in Washington legislative circles, but not one of them is the peer of General du Pont.

General du Pont, like Saul among his fellows, overtops all the Senators physically as he does financially. He is the biggest man in the upper house since the late Ollie James, of Kentucky. He stands six feet four inches in stocking feet and tips the scales at 204. At 58 he looks as hard as nails and still plays tennis, but says he is too young yet to go in for golf. He went in for every form of athletics; he was captain of the football team, captain of the baseball nine, was stroke of the crew, ran 100 yards in 10 seconds, was a record-breaking sprinter, an expert shot and swimmer and a champion boxer and wrestler. And he is as democratic as democracy itself. It is not a pose. He absorbed it when driving mules, and swinging a pick down in the Kentucky coal mines and the possession of wealth has not corrupted it.

General du Pont is an enthusiastic trustee of the Massachusetts Institute of Technology. He has contributed to his alma mater about $1,000,000 for its expansion.

Notwithstanding General du Pont bears one of the honored and historic names of this country, he is essentially self-made. A family tradition did not make him. His father, Antoine Biderman du Pont, was not in the powder company which had its infant works on the Brandywine, started by Eluthere Irenee du Pont, whom General Lafayette knew, as well as his father, before he emigrated to Delaware to found the first powder mill in America. Lafayette revisited this country in 1835 and wrote in an album inscribed to one of the du Pont family, stating that he was happy to find this battle scene the seat of industry, duty and friendship. It is a mistake to picture General du Pont as the son of a powder king. His father had no connection with the powder business. Coleman who was born in Louisville, Kentucky, December 11, 1863, started life at the very foot of the ladder without a dollar.

Manifesting an early interest in things mechanical the boy was given a college education at Urbana, Ohio and a school in the East, after which he was sent to the Massachusetts Institute of Technology to receive training as a mining engineer.

"The Brandywine Powder Works," as they were known a hundred years ago, are located about four miles from Wilmington, Delaware. The founder, Eluthere Irenee du Pont, was a native of France and emigrated to the United States in the fall of 1799, landing at Newport, Rhode Island, January 1, 1800. Having remarked the poor quality of gunpowder then made in America, he resolved to engage in its manufacture. He had an expert knowledge of gunpowder, having been a pupil of the celebrated Lavoisen, who had charge of the Bureau de Poders et Salt Peters under the French Government. After some time spent in location, Mr. du Pont established himself on Brandywine Creek, where he prosecuted the business with such success that at the time of his decease, in 1834, his establishment was the most extensive of its kind in this country, as it is now in the world. Since the death of its founder the business has been carried on by his sons and grandsons, who have maintained the old firm name of E. I. du Pont de Nemours & Co.

The product of the mills is principally consumed in the United States. The firm has agencies and magazines at all the most important centers, with the principal depot for the Pacific States at San Francisco, and agencies in South America and in the East and West Indies. The powder manufactured by the company was a factor in the Crimean War, enabling the Turks to prosecute the siege of Sebastopol; it was also a factor in the Civil War, the Spanish War and the World War. Brandywine Mills have always furnished American powder, which compares favorably with that produced anywhere in the world.

The manufacture of powder at the mills covers a wide field. It embraces the various degrees for mammoth, cannon, mortar, musket and rifle for army and navy ordnance service, diamond grains and the various grades of canister and sporting powders as well as marine, blasting, mining and fuse powder. The skillful utilization of by-products was undertaken by General du Pont himself. The du Ponts are not only the largest makers of explosives, but are the world's largest manufacturers of leather substitutes — 60% of the 1,500,000 automobiles manufactured in twelve months have been upholstered in Fabricord, one of its products, thus tending to keep down the price of leather materials.

Moving picture films are largely composed of du Pont basic material. The du Pont output of ivory and shell substitutes is enormous. The wonderful anaesthetic, ether, is produced in larger quantities in the du Pont plants than anywhere else in America. It is said that there are now more than 250 commodities marketed by the du Ponts.

The story of how General du Pont was invited to become associated with the du Pont Powder Co. is interesting. When Eugene du Pont, head of the company, died, no other member of the family cared to take his place. One day the General received a note from his cousin, Alfred E. du Pont, asking him to consider going into the business. In talking the matter over with Alfred and other members of the family in the old firm he saw that none of them was willing to take on the active duties of management. He then got in touch with Pierre S. du Pont, then living at Lorain, Ohio, and he came East. He was told of the plan. The result of the conference between the members of the family and Pierre S., Alfred I., and General du Pont, was that the latter three younger cousins took over the management. At that time there were seven clerks in the main office of the company. This company, however, had important interests in other companies dealing in explosives. Today there are probably 1,700 clerks in the main office and between 2,500 and 3,000 employees.

The first thing done under the new management was to consolidate all of the many companies and sub-companies controlled by the du Ponts, into one corporation. This brought standardization, efficiency and economy in every department.

When the war broke out in Europe the du Pont company was splendidly prepared to meet any emergencies. It was in position to respond to the call for an increase in output multiplied many times. It anticipated most of its deliveries. It had no strikes and at one time it had 40,000 men on construction work.

General du Pont says that outside of the general chemistry which he had learned at school, he knew nothing of the manufacture of powder. However, his cousin had this knowledge and experience and was familiar with the use of it commercially. He also had successful experience in organizing and systematizing several industries. The company engaged the best men it could find. It paid them large salaries and their brains were encouraged with the result that they made thousands for the company annually.

For four or five years General du Pont worked from early morning until late at night. The subject of powder was in his every thought. In three years the company began to grow and it has continued by leaps and bounds to grow ever since.

While the du Pont Powder Co. is the largest of its kind in existence it will be surprising to many people to learn that in normal times, less than 2% of the company's output goes for military purposes. The company supplies the government with a large part of its powder requirements every year, but this does not call for more than 1% of its entire output; 99% of the output made is sold from year to year for mining purposes, quarry work, tunneling operations, railroad building, road construction, forts, leather substitutes and other miscellaneous uses.

When General du Pont in 1883 emerged from the Institute of Technology as an engineer, he went into the coal fields of Kentucky and got a job. He worked first as a mule driver, then acquired the trade of a blacksmith and was familiar with most every phase of physical work that there is to do about mines.

By reason of his training and tireless industry he forged gradually ahead and at the end of ten years in the coal fields found himself occupying a position of manager and drawing a salary of about $3,500 a year. This was the top of the ladder in that line. So as a young man in the twenties he looked all around him, sized up the situation, and decided to engage in specialized industry. Reaching this conclusion he resolved that the steel industry was the most attractive of all to him. He resigned therefore to become manager of a steel mill in Johnstown, Pennsylvania. Here he had every opportunity to learn about iron all the way from taking the ore out of the ground to marketing its finished product.

In those early days the young engineer dreamed of owning a coal company. By reason of advantageous loans, in the course of time he acquired control and became president of the Central Iron & Coal Co., the McHenry Coal Co., the Main Jellico Mountain Co., all of Kentucky, and of other similar enterprises. In the end he came to own eight or ten coal companies and realized his early ambition several fold.

At this stage of his career he came in contact with Mayor Tom L. Johnson, of Cleveland, who had started to work for his father at 50c a day. He got a position as general manager with Johnson's concern in Johnstown, Pa. This company, then known as the Johnson company, afterwards became the Lorain Steel Co., now a subsidiary of the United States Steel Corporation. It is an interesting fact that when Johnson elaborated and worked out his scheme of 3c railways in Cleveland, A. B. du Pont, the General's brother, a son of Johnson's former employer, was his engineer and advisor in that enterprise. Later General du Pont became interested in street railways. He went into this on a large scale. He bought the car line in Johnstown and built the cars in New Jersey, New York and Alabama. These lines contributed heavily to his bank account.

When in 1900 the General assumed the presidency of the du Pont Powder Co., he decided at the end of 15 years, that its management should go into younger hands. He accordingly resigned. But his active brain could not remain inactive. Other big enterprises as the result of his engineering education came to his attention and fired anew his ambition. He became interested in the building of the largest office building in the world, that of the Equitable Life Assurance Co., in New York City. He found that the Equitable Life Assurance Co. owned the ground upon which he wanted to erect a large office building. This led to his leasing the ground for the erection of this building.

Back in 1914, he thought that the time had arrived for the construction of an office building, which was to be the greatest in existence in all the world. He proceeded to drive the project through. He spent between $25,000,000 and $30,000,000 in its construction and it has been a successful venture in every way. As one of the directors of the Equitable he was one of the leading factors in transforming it from a stock controlled to a policy-holder mutual-owned life insurance company.

Coleman du Pont as an engineer became interested in hotels through loaning some money to a hotel enterprise. Out of this grew his interests in the Waldorf-Astoria, the McAlpin, the Martinique and the Claridge in New York, the Bellevue-Stratford in Philadelphia and the New Willard Hotel in Washington. He controls about nine hotels, each splendidly managed institutions.

One of his big construction jobs was that of building, at his own expense, at a cost approximately of $4,000,000, a highway the length of the State of Delaware. When finished, this great and useful road will be presented to the State. Senator du Pont is strongly of opinion that more money will be spent in the next 25 years in building roads than has been spent in the last 25 years in building railroads. He has been an enthusiast over building good roads since he was 19 years old, for then he learned that it was cheaper to fill up the holes in the road than to be continually lifting wagons out of those holes. He believes in arousing the American nation to the necessity for good roads, as a peace and a war measure alike.

General du Pont dearly loves conceiving, planning, organizing and systematizing a project and getting it established. When successfully launched, then he wants to start something else. Had he not been appointed to the United States Senate, to succeed the man who resigned to become Chancellor of Delaware, the chances are that he would be looking for a job now. He does not consider it work to look after his large banking, mining, real estate, insurance, hotel and farm interests. His farms are models and are successfully conducted on a large scale. On them he breeds pigs and sheep and maintains large herds of registered cattle. He has made a success of farming. His projects are always so thoroughly organized and brought up to such a high state of efficiency as to need little or no more of his personal attention. His name has often been suggested for the White House. At one time he received upwards of a thousand letters asking him to become a candidate for the Presidency of the United States. He simply told his friends that he did not think much of their judgment.

General du Pont says he never liked work, which for a man who has done more than his full share sounds like satire. But hear him. He says:

"I have tried to retire from active life for 20 years. I have had no desire to get into one line of activity after another. I don't want to work hard, to assume responsibilities. One thing after another insinuated itself upon me, however, and I allowed myself to get into it.

"This position of United States Senator, for instance, is a new activity which has presented itself to me. I am floundering around here in Washington. I am a good deal at sea as to what I should do on this job, have not as yet found myself in it. I am often asked whether I will stand for election when the term for which I am appointed expires.

"This question reminds me very much of the story of the young woman who came from the West and who was unfamiliar with oysters served on the half shell. She attended her first dinner where they were served and, following the example of those about her, partook of her first oyster. Her hostess noted that but one fat bivalve had disappeared from her plate and asked her if she would not take more of them. This young woman said, giving evidence of a heavy weight on her tongue: 'No, thank you, I don't know what to do with the one I have got.'

"I am exactly in the same position with relation to this Senatorial job."

Senator du Pont was made Brigadier-General on the Governor's staff, a distinction conferred on him by four Governors of the State of Delaware. While in Delaware he joined the National Guard, for he believed that citizens should prepare themselves for defence at home, rather than to saddle the country with a huge standing army.

He is not a politician, but in order to rid Delaware of "Gasman" Addicks, who for 12 years had prevented the State of Delaware from being represented in the United States Senate, he jumped into the arena and drove Addicks out of politics. In this way he became state chairman, at first declining the offer of a senatorship which was made repeatedly until he accepted it. As a member of the Republican National Committee in 1908, he supported Taft and for a time was in charge of the speaker's bureau in that campaign. In 1916 his Delaware friends attempted to bring him forward for presidential honors.

General du Pont is the foremost representative of an old American family, a family that has supplied the American Navy and Army with admirals and generals and the powder for every American war since 1802. He comes of a long line of statesmen and economists. Jacques Charles du Pont de Lieure, a French lawyer and statesman, was born in Neuburg, in Normandie, in 1765. He was an advocate at the Parliament of Normandie. Pierre du Pont was a French song writer of great popularity. Pierre Samuel du Pont de Nemours was a French political economist and statesman, born in Paris, 1739. His attention was early directed to economic questions through his friendship with Quesnay, Turgot and other leaders of the School known as the Economists. To this school he rendered valuable service by preparing several able pamphlets on financial questions and studious articles representing and advocating popular views. On the downfall of Napoleon in 1813, du Pont became secretary of the Provincial Governor, and on the Restoration he was made a Councillor of State. The return of the Emperor in 1815 prompted him to quit France and he emigrated to America, spending the close of his life with his two sons, who established the powder business in the State of Delaware. Senator du Pont says that there are today probably 175 du Ponts in the United States who sprang from this ancestry.

This is the sketch of the U. S. Senate's richest man now in the prime of his splendid manhood, who would retire from business and give up all responsibility; but who does not know how to do it.

And he never will learn how to do it.

ELBERT H. GARY

Judge Gary and Steel are inseparably linked. For many years he has piloted the greatest industrial enterprise of the world—the United States Steel Corporation.

It was a gigantic task that the late J. P. Morgan saddled upon him, but it is doubtful whether an abler man could have been found. Gary has proved himself a Giant of industry.

ELBERT H. GARY

JUDGE ELBERT HENRY GARY is the head of a corporate empire greater in income, resources and area than the average European nation. The biggest manufacturing job in America is to be the chairman of the board of directors of the United States Steel Corporation.

The present head of the United States Steel Corporation was born in 1846, in the town of Wheaton, Du Page county, Illinois, 25 miles west of Chicago. His father was a sternly practical man. The rigid New Englander had by hard work, carefulness and frugality earned more than enough to clothe his family. His growing children were given the choice between study and work. Elbert preferred school to chores, with which he had extensive first hand acquaintance. Later, he attended Wheaton College, taught school in the country during two winters, then entered the law office of his uncle, H. F. Vallette, a lawyer of high standing locally, and remained in his office for eighteen months.

His father said he might come into a little property some day and a knowledge of the law would help him to conserve it. He went to Chicago to study, and, at 20, graduated from the law department of Chicago University. He got $12 per week assisting the clerk of the courts, having been recommended by the head of the law school as the most promising graduate of the year. He proved himself capable and rose to the highest position in the office.

The day after the great Chicago fire, Judge Gary hired a room in the Winters Building and hung up a lawyer's sign. He made $2,800 in the first year. His youthful ambition was to become a judge. By way of gaining standing and influence, he became the first mayor of Wheaton. He did not have long to wait to realize his ambition, for he was later elected a county judge.

By attending strictly to business the young lawyer built up an excellent practice. He was not satisfied with simply acting as attorney; he bought the stock of a new combination of industries that was placed in his hands for organization. This, his first commercial venture, was a combination of the wire fence manufacturers. As a boy, he realized the value of a fence that would replace and outlast that of the old fashioned rail and wood. Into this project he placed his savings.

Interested in iron and steel, he foresaw that the world was entering the steel age. Upon leaving the bench he became attorney for several corporations, though retaining his general practice. Through his instrumentality several plants combined to form the Consolidated Steel & Wire Co. of Illinois, a $4,000,000 concern, then regarded as a veritable giant. Four mills were secured seven years later and the enlarged enterprise was incorporated as the American Steel & Wire Co., with $12,000,000 capital. Judge Gary was elected to the board of directors and took an active part in the management.

He realized very clearly that combination meant strength. He evolved the theory that if he could combine all the units of iron and steel manufacture and transportation into a single management, enormous economies could be effected, unprecedented efficiency could be attained, and handsome dividends earned.

From this venture the young lawyer went further in the industrial field. His ability as a corporate lawyer, his integrity and dependability were rapidly recognized, and he became associated with other large steel industries in the West. From steel he extended his interests and reached into steamship lines, railroads and mines, projects logically connected with steel interests.

Fascinated and impressed with the economic soundness of combination and co-operation of industry, Judge Gary brought together many rival concerns into joint agreements and combinations, forming probably the largest aggregation of industrial interests under one management of any one man living.

He had already become a factor in the Illinois Steel Co.

and was on its board. He advocated the formation of a huge consolidation which would comprise the Illinois Steel Co.; the Minnesota Iron Co., which owned the mines; the Lorain Steel Co., which had works on Lake Erie; the Minnesota Steamship Co., which would supply the water transportation; the Duluth & Iron Range Railroad, which would carry the ore to the Lake; the Elgin, Joliet & Eastern Railway and the Mt. Pleasant Coal and Coke Co. of Pennsylvania.

Along with Robert Bacon, then a member of J. P. Morgan & Co., Judge Gary created the famous Federal Steel Co., the $200,000,000 corporation which caused both America and Europe to rub their eyes in amazement.

When the Federal Steel Co. was formed, Mr. Morgan sent for Judge Gary and told him that, there was only one man fitted to take charge of the combination. The Judge replied that he didn't care for the job. Mr. Morgan demanded to know why. The Judge explained that he was making more than $75,000 a year from his law business in Chicago, that his income was steadily growing and that he was not anxious to give it up. But Mr. Morgan had his way, and finally Judge Gary agreed to come with Federal Steel Co. as its head for three years. For this he received $100,000 a year, until that time the highest salary on record.

In the year 1900, when the Steel Corporation was first broached, the Federal Steel Co. had been in existence about two and a half years. Judge Gary was its president. The Judge says that Henry C. Frick came to his office and suggested that the Federal Steel Co. could be very much improved and he believed that Carnegie Steel interests were for sale. This was the first suggestion which led to the organization of the United States Steel Corporation. After Mr. Frick had talked to him, he spoke to Mr. Morgan who suggested that other directors of the Federal Steel Co. be consulted regarding the Carnegie proposition. Frick talked with H. H. Rogers and other directors of the Federal Steel Co. but nothing came of it at that particular time. The next thing he heard was that W. H. Moore and others had secured an option from Mr. Carnegie for the sale of his steel plant. He had nothing to do with that option, but he knew that the

Moores had consulted with the First National Bank of New York regarding it.

As the matter was first presented to him, Judge Gary did not think well of it and it was dropped. Soon after that Charles M. Schwab suggested to him that the Carnegie Steel Co. might be acquired by the Federal Steel Co. and he determined again to speak to Mr. Morgan, knowing that such a deal would involve financial backing. Mr. Morgan did not then give much encouragement. He did not report to Mr. Schwab about his conference with Mr. Morgan, but Mr. Schwab came to see him several times afterwards and about that time J. Edward Simmons, president of the Clearing House Association of New York, gave a dinner at the University Club at the request of Mr. Frick, to bankers and men interested in the steel business.

Mr. Schwab, Mr. Morgan and others were present, and Mr. Schwab made a statement concerning the Carnegie Steel Co., which made quite an impression on Mr. Morgan—a description of its export business, its cost of production and the like. The next morning Mr. Morgan again heard about this talk, when Mr. Robert Bacon, then a partner in the firm of J. P. Morgan & Co., came to his house to discuss it. Mr. Bacon said that Mr. Schwab had submitted the Carnegie letter which fixed a price for the steel plant and Mr. Morgan had told him to submit the entire matter to Judge Gary. He went over the whole matter until lunch time and Mr. Bacon went to see Mr. Morgan and came back and they spent the entire evening going over it. At that time the Federal Steel Co. was in need of finishing mills and sought a corporation of sufficient financial strength to increase its lines of business and particularly its export trade, which was then small. It was necessary to increase its export trade in order that this country would get its fair share of business from neutral ports.

The result was that Mr. Carnegie's price was accepted and Mr. Schwab was made president of the steel company. One of the first things he did was to bring James A. Farrell, the then president of the steel company, from Chicago to New York for the purpose of extending the export business.

When the Steel Corporation was formed, Judge Gary, as an intimate friend of J. P. Morgan, and a man trained in legal procedure, was elected to the chairmanship of the board of directors. He was made the supreme head of the organization. This was considered necessary because the Steel Corporation's problems were at first of a legal rather than a commercial nature.

Much has been said and written about the "Gary dinners." It was during the panic of 1907 that they first were held. The first dinner was given in the dark days of November of that year when the financial heavens were falling and industry was prostrate.

Instead of cut-throat competition, unbridled demoralization and wholesale discharge of employes, it was there and then resolved to unite in an effort to stay the panic. Committees were appointed covering every branch of iron and steel industry, prices were steadied, bankruptcy breeding tactics were checked and order evolved out of chaos.

Whether everything that was done was legal or not, the results for business, labor and the country as a whole were invaluable. As soon as the Administration had intimated opposition to these gatherings, in 1911, they were discontinued.

The hand of Judge Gary was shown in all of this. Henry C. Emery, former professor of Political Science of Yale and Chairman of the United States Tariff Board under President Taft, in the course of an analysis of Judge Gary's services to America, says:

"What I have chiefly in mind in this regard is the treatment of stockholders. I spoke of him as the author of the 'open door' policy. Few people realize what a dramatic thing was the first publication of the quarterly statement of the affairs of that corporation. Powerful men protested that the public had no right to know. Gary insisted that 100,000 stockholders had a right to know about their own property and that he proposed to tell them. Some thought it a bluff; that when the lean quarters came, the Judge would not dare to print the facts.

"They didn't know the man or his indifference to the men who hang around the ticker. Fat years or lean, whether the common stock sold for $10 or $100, the facts as to the conditions of the company have been revealed every three months. The adoption of such a policy of 'pitiless publicity' was as much a landmark in our industrial history as the organization of the great merger itself—more so, in fact. We have heard much recently of the necessity of doing away with 'secret diplomacy' after the war is over. By this action toward his stockholders and the public, Judge Gary dealt a historic blow to the policy of secret diplomacy in corporation finance."

In 1911 and 1912 came the fight of the Government against the United States Steel Corporation charter. The Commission of Corporations submitted a most voluminous report, a document covering 60 pages of closely printed matter, dealing with the marked development of consolidation, culminating with the organization of the Steel Corporation; capitalization by the Steel Corporation far in excess of property values, the Bureau's valuation of tangible assets in 1901 being $682,000,000, against $1,400,000,000 of issued securities, an analysis of cost of subsequent additions to property of the corporation, showing a total investment in tangible property December 31, 1910, of $1,187,000,000, against $1,468,000,000 outstanding securities; an average rate of profits from 1901 to 1910 on the corporation's actual investment, as computed by the Bureau of 12% ; an almost continuous decrease in the corporation's proportion of output of principal steel products, but a marked increase in its ownership or control of iron ore deposits.

The United States Steel Corporation, under the leadership of Judge Gary, made a winning fight, notwithstanding the adverse experience of the Standard Oil Co. and the American Tobacco Co. The conditions facing the steel industry at the time of this consolidation were quite remarkable. Competition was threatening to break out in violent form. On the other hand, the upward swing of business in the United States had not exhausted its vigor, and the readiness of the business world to support vast commercial and financial undertakings was unabated. Finally, at the close of 1901 the Carnegie interests announced that they would erect an immense tube plant on the shores of Lake Erie, a move largely the result of plans of the National Tube Co., to provide its own supplies of crude steel.

There were then in the steel business four distinct groups, known as "Morgan," "Moore," "Carnegie" and "Rockefeller." No consolidation could be as successful unless it included the Carnegie company, the most powerful factor on the situation, which had long been noted for its aggressive tactics, and which had precipitated this crisis. Moreover, there can be little doubt that interests in the steel industry regarded Mr. Carnegie's personal influence as a menace to themselves, and desired to secure his retirement. The primary solution of the situation, therefore, was to buy out Mr. Carnegie. The threatened "steel war" was thus averted after only a few weeks of negotiations, as a result of which the United States Steel Corporation was formed. It was pointed out that the company was overcapitalized, as indicated by the fact that the underwriting syndicate got a commission of common and preferred stock amounting to $130,000,000, of which the syndicate realized $90,000,000 or a net profit of $62,500,000. Of this amount, $12,500,000 went to managers and $50,000,000 to members. Other than this, $20,000,000 was paid by constitutent companies for underwriting services.

The following individuals joined in the answer that was filed in Trenton, New Jersey, United States District Court, to the petition filed by the Government under the Sherman Anti-Trust law: J. P. Morgan, Elbert H. Gary, Charles M. Schwab, Charles Steele, Henry C. Frick, James Gayley, William H. Moore, Percival Roberts, Daniel G. Reid, Norman B. Ream, George W. Perkins and Peter A. B. Widener. The answer was also signed by distinguished counsel. This answer defended the organization of the subsidiary companies, denied that they were formed in violation of the Anti-Trust Act, claimed that they were normal and necessary developments of the times, and insisted that, instead of restraining trade or commerce, they had developed and increased it.

It was stated that the organization of the Steel Corporation was suggested and induced by the managers of the Federal Steel Co., who desired to diversify their products and increase the integration of the company. It was for the purpose of effecting greater economies by combining plants and processes and increasing the diversity of products, and also for extending foreign trade in steel products, that the organization of the larger corporation was proceeded with. It was pointed out that there was no concealment of any of these purposes, but that, on the contrary, the utmost publicity was given to it. Attention was directed to the fact that the government was not only fully cognizant of the existing corporations that were purchased but that no objections were made by it for any of the steps in the progress of organizing the corporation.

The answer pointed out that the organization had cheapened the production of steel to the consumer, had extended the home markets for steel products, and had increased its foreign trade by natural developments from $52,000,000 since 1901 to $60,000,000 in 1911, that foreign trade thus created constituted upwards of 90% of the total United States exports of steel products. It was denied that competition had been suppressed or any monopoly in steel effected or attempted. The number of competitors of the Steel Corporation in the United States has increased since 1901.

Monopoly of available coal and iron deposits of the United States was denied. It was stated that one-half of the iron ores of the country now commercially available are owned by private individuals and are for sale to any person desiring to buy them. It was asserted that the corporation owned or controlled less than 40% of the present available ores of the United States. It was further stated that industrial growth of competition has existed in the iron and steel business since the corporation was organized and expressly denied that any attempt to regulate the trade improperly was attempted at the so-called "Gary-dinners," but that the fraternal feeling developed by those meetings of manufacturers had been of great benefit to all business interests.

Judge Gary went on the witness stand and said that he had written in 1905 to all the railroad presidents with which the Steel Corporation was doing business and had announced that he would not accept rebates of any kind. He sent a copy of that letter to the officers of all the subsidiary companies and he was certain that his order had not been violated. Reverting to the subject of competition, Judge Gary said that the United States Steel Corporation had never bought a plant and then dismantled it for the purpose of eliminating it as a competitor. "If we have ever bought and dismantled," said Judge Gary, "it has been for the purpose of building a better plant at a more favorable location." He denied that in buying a plant the United States Steel Corporation made it a condition that the owners of the plant should refrain from again going into the steel business. Judge Gary volunteered the information that his policy and the policy of the United States Steel Corporation is publicity.

He again expressed the opinion that there should be enforced publicity as to the best way to control great corporations. He insisted that the disposition of the United States Steel Corporation was to keep away from monopoly, so much so, in fact, that the stockholders frequently criticised the officers for not increasing their product in order to keep up with the proportionate increase of production by competitors. He declared that the United States Steel Corporation had never suggested an increase in cost prices because such prices were almost certain to bring on wild fluctuations. He then told of the attitude of the company toward its employes, said $1,000,000 had been expended to buy machinery which would reduce the possibilities of accidents; also that they had spent money to improve sanitary conditions and had refused to reduce wages at a time when its competitors were doing so.

The result of the fight, which was clean-cut and well fought out, was a clean bill of health for the company.

Judge Gary, throughout the history of the United States Steel Corporation, has shown himself to be a broad-minded man. He was one of the most powerful pioneers for corporation publicity America has ever known. He inaugurated a publication of monthly statements years before the agitation for publicity came in force. It was said of the fight against financial and industrial leaders of the corporation: "All this must be stopped by the rich themselves or the mob will stop it. There would have been neither growth nor spread of antagonism to capital unless there had been some of it justified."

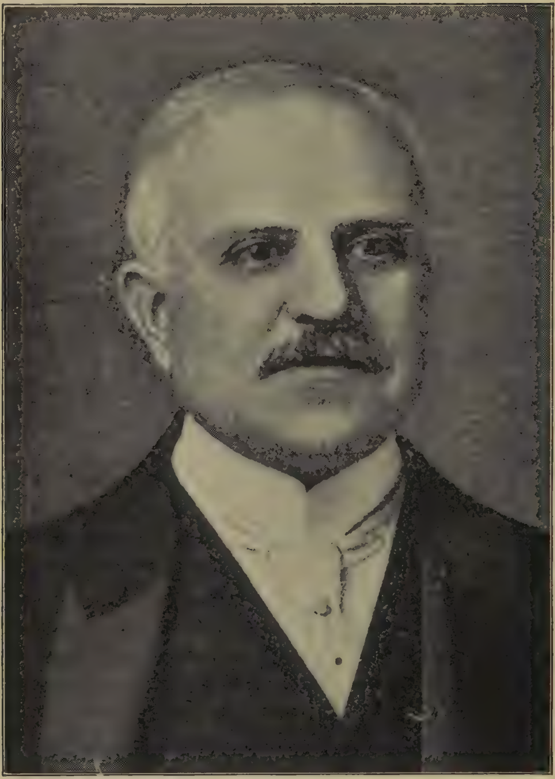
Judge Gary was old-fashioned in many of his ideas. A great many people regarded him as an idealist instead of a practical man, and some claim that his notions were costing the corporation a great deal of money. However, he stuck to his guns. "This corporation is so big that, unless you deal fairly with the public, your competitors and with your customers, you are bound to encounter trouble sooner or later," he repeatedly told the directors. The result was that the Government brought suit to dissolve the Corporation as a "trust" and scoured the country for witnesses to testify against it. Yet not one rival, not one customer, not one employe, not one member of the public, came forward with one word against it. The only complaints made were by lawyers and others in the pay of the Government.

The esteem in which Judge Gary is held by the steel trade was demonstrated by a notable tribute paid him by competitors and customers at a complimentary dinner given in his honor in 1919 by the Independent Iron & Steel Manufacturers of the United States and Canada. The character of the gathering and tenor of the addresses delivered were notable. Here were chiefs of rival concerns paying a unique tribute to the head of the most powerful rival of them all. And they spoke not even merely of him as a friend, but as the beneficient father and counsel of them all. It was on this occasion that Mr. Schwab, the vice-president of the corporation, magnanimously admitted that in his differences with Judge Gary, Gary had always been right and he had always been wrong.

It was on this occasion that the late J. P. Morgan made one of the extremely few speeches of his lifetime.

He was so overcome by emotion that, to hold himself up, he grasped the back of his chair with one hand and leaned upon the shoulders of another diner. Before he sat down, tears were trickling down his cheeks and he whispered to his friend that had he not leaned against him, he never would have been able to remain on his feet. Mr. Morgan's speech was very short, yet to the point. He said: "I wish it were in my power to say all that I would like to say on this occasion. What I might say at another time would be pretty poor, but tonight I am very much overcome by all that I have seen, for Judge Gary and I have been working together now for 10 years and in a way perhaps none of you appreciate how much it has meant to me. I feel as though we were all just together. It is impossible for me to say more, and I must ask you to accept my appreciation of how deeply I feel for the kind evidence of your sentiment towards me tonight. Gentlemen, let me ask you to excuse me from saying more."

Judge Gary is married, but has no sons to succeed him. He is the head of an industrial concern employing an army of 275,000 men, with a payroll that totals approximately $320,000,000 a year, with a fleet of more than 100 steamers; with a railroad system which, straightened out, would stretch from San Francisco to New York and project several hundred of miles into the Atlantic; a concern which mines as much coal as the greatest of American coal companies and makes over a million barrels of cement in a month; which has 122,000 stockholders who receive about $70,000,000 in dividends annually, and whose assets exceed $2,000,000,000. His office is on the 15th floor of 71 Broadway and he has industrial ambassadors in 60 countries with some 60 subsidiaries and 20 corporation presidents serving as aides to himself, chief executive. Yet the man who presides over this corporation always holds himself well in hand. He is always master of the situation. There is no job in America better filled and none will be harder to fill when he retires.



DANIEL GUGGENHEIM

Industry, tenacity and sacrifice are the three elements that have formed the success of Daniel Guggenheim and the Guggenheim family. Today the name is synonomous with the manipulation of ores, but control of the smelting industry was not attained without a gigantic struggle.

Daniel Guggenheim has been the leader of the fortunes of the present Guggenheim family. To him may be accorded generous credit for the supremacy the United States enjoys, as a producer of metal.

DANIEL GUGGENHEIM

DANIEL GUGGENHEIM is known as the "Smelting King." Two of the Guggenheim smelters handle 1,000,000,000 pounds — 500,000 tons of copper annually — almost half the entire production of the world, which in normal times is 2,050,000,000 pounds. These interests control three of the largest copper mines in the world, the Chile Copper, the Utah Copper and the Kennecott Copper properties.

Two of the Guggenheim companies alone, the American Smelting & Refining Co. and the American Smelters Securities Co., do a business in normal times of more than $300,000,000 a year — this exclusive of their mining activities. The Guggenheims are also powerful factors in the silver industry of the world and are very large factors in gold, lead and zinc as well as in a variety of by-products.

They rank among the largest employers of labor in the world. They were the first employers, so far as is known, to pay several of their employes, in salary and percentage of results, remuneration running into hundreds of thousands of dollars a year.

From control of one tiny smelter in Pueblo, Colorado, the famous Guggenheim family, by industry, tenacity and sacrifice have built up the greatest mining and metallurgical enterprise the world has ever known.

When, in 1905, the Guggenheims embarked in the Utah Copper Co., few people believed that the property could be made to pay. The ore was of such low grade. But Daniel Guggenheim advocated the construction of a $6,000,000 smelter and a $2,000,000 copper refining plant to handle material which previously had never been handled at a profit. A few years before, when a party of capitalists had gone over the scraggly hills, one of them had said that he would not give

$10 for the whole hill. This material contained only 20 to 30 pounds of copper to the ton to pay all the expenses of mining, smelting, refining, transportation, selling, etc. This expenditure of the Guggenheims of $8,000,000, however, proved to be one of the most profitable things the family ever did, as the mine is now ranked as the second largest in the world and pays handsome dividends.

Then look at what the Guggenheims are doing in Chile! The Chile Copper property is ensconced in a remote, barren, mountainous desert 9,500 feet above the sea-level, in a region where rain has not fallen within the memory of man, where vegetation is unknown, where water has to be carried a distance of 40 miles to the mine, where power has to be transmitted a distance of 85 miles, from the power house to the mine, where roads do not exist — where there is nothing to attract people to live there. But to that repellent country the Guggenheims went and spent many millions in making the country habitable, at once setting up the necessary complex machinery in motion. Today the Chile Copper Co. has the largest developed body of copper ore in the world.

The Guggenheims have been for many years interested in Alaska. The mineral treasures of Alaska lay on the coast. It was the initiative of Daniel Guggenheim which led to the investment of many millions of dollars in Alaska, in the face of universal skepticism and discouragement. He bought the Bonanza Mine, now a part of the Kennecott Copper Co., which has a large body of copper melted by nature, then corroded by glaciers and left pressed on a hill. Although this deposit contains some 65% to 85% copper, not a part of it was mined between its discovery, in 1901 and 1911, because it was beyond the reach of transportation. Daniel Guggenheim set about the purchase of a half interest in the mine and agreed to build transportation within two years to get the copper out.

Mr. Guggenheim says that, whenever he thinks there is good business to be had, his firm will go anywhere in the world, whether it is Chile, Peru, Alaska, Mexico, Africa or the Orient. He would go for metal in the Arctic if he could get it.

The smelting industry was revolutionized by the Guggenheims. Prior to their advent smelting contracts were made for only one year, the interests engaged in smelting being afraid to take the risk of advancing wages and rising costs over a series of years. The Guggenheims began taking 5-year, 10-year and even 25-year smelting contracts at prices which appeared suicidal at the time. But they were enough of students of history, of science, of engineering, of chemistry, of transportation, and of economic revolution to have faith in their convictions that improved processes would be devised to reduce smelting and mining costs that would yield a profit in the future.

The first venture of the Guggenheims was in a smelter in Colorado. But they shortly acquired other interests. There were seven of them, all active, ambitious, optimistic, ready to rough it and go anywhere, do anything and suffer anything to contribute to the success of their new enterprise. No prospector knew more hardships than did the Guggenheim brothers to reach their desired goal. Mountain fastnesses, untamed valleys and wastes possessed no terrors that the daring young Guggenheims shrank from facing.

They soon discovered that the Creator had invariably deposited mineral wealth away from settled centers of civilization and had surrounded it with obstacles which only the fearless pioneer elected to encounter. A price had to be paid to nature for the giving up of her treasures.

Daniel Guggenheim and his other brothers uncomplainingly paid the prescribed price. Distance had no meaning for him or them; wherever there was a chance to achieve something he went, no matter what the cost and physical discomfort. He slept in tents or wagons amidst wild surroundings as often as under a roof. The food he ate would frequently have been scorned by a negro slave. His business demanded that he proceed to the firing line of advancing civilization and he did not flinch from the ordeal.

The readiness of Daniel Guggenheim and his brothers to undergo personal hardsip was not the only reason they forged ahead. They had courage and wisdom enough to engage the best and most expensive engineering and mining brains procurable. Not only did they pay perhaps the largest salaries then known, but they shared results with those who made results possible. In this way they got the pick of the world's mining, engineering and metallurgical talent.

And with this all they took pains to surround their workmen with as comfortable conditions as could be provided. There are few families which have built more schools, hospitals, churches and recreation halls for employees.

Next to the Rockefellers, the Guggenheim family is probably the wealthiest in the country. In dispensing their benefactions they did not consider matters of race, creed or religion. In their early days Mrs. Daniel Guggenheim did not hesitate to share her husband's hardships on the firing line.

When the United States Government first wanted to obtain a large quantity of copper for war purposes, Daniel Guggenheim was the second person approached on the subject by the Government, who promptly took the lead in seeing that the copper was provided promptly and at a figure only half that prevailing in the open market.

Daniel Guggenheim is still head of the American Smelting & Refining Co. and the American Smelters Securities. He does not work, however, as hard as he did. He has other interests which now appeal to him more than money-making, and his mining burdens are now capably borne by his son, Harry F. Guggenheim distinguished himself at Cambridge University, England. Young Harry Guggenheim carried out the traditions of his family in spending a number of years in mines and meallurgical plants in Mexico, before taking his place at the council table. Like his father he is a great cosmopolitan and traveler.

The subject of this sketch is of a Swiss Jewish ancestry. His father was a lace merchant in Philadelphia. His son rose to the head of the greatest smelting industry in the world from a business beginning which did not in the remotest way suggest the industry in which he is now engaged.

There was a time not many generations ago when the nearest smelter was in Wales and smelters still carry a Welsh flavor. But no one perhaps ever thought before to put down in print what the mining and smelting industry as it exists today, owes to men whose forebears came from Switzerland. When Prof. Agassiz 60 years ago was merging the Hecla, Calumet, Red Jacket, Scott and Portland mines into the parent Calumet & Hecla in order to consolidate the valuable lands which had the underlay of the conglomerate lode in the Lake Superior country, it was the custom of the New England Yankees to refer to him as that "crazy Swiss Dutchman." From the activities of Prof. Agassiz have resulted the great Calumet & Hecla mines, with their enormous milling and mining interests.

From a maker and merchant of laces and embroideries to a mining and smelting head is a far cry for Daniel Guggenheim. The present enormously commanding position of the Guggenheim family in copper, gold, silver, lead and zinc mining and smelting, and in more than one of these spheres standing supreme, makes it almost impossible to comprehend the humble origin of the family. Daniel Guggenheim, as well as his six brothers, has risen from the depths of obscurity to the heights of supremacy. The position of the Guggenheim family in American mining, smelting and finance is without parallel.

It was in 1847, the year which saw the beginning of the rush of German immigration to this country, that a young boy arrived at Castle Garden with his father. This boy was Meyer Guggenheim, the destined-to-be paterfamilias of the celebrated Guggenheim family of seven sons and three daughters. Neither Meyer nor his father could speak English. He was verging on 20 years of age and was slightly built. The pair had very little money.

On the way over, in the steerage, Meyer Guggenheim met the girl who was later to be his wife. It was a case of love at first sight and as the ship required four months to cross the ocean at that time, the lovers had ample time to get acquainted with each other.

As a matter of fact, father and son had scarcely enough money to get to Philadelphia, the goal of their journey, where they had a few friends who had preceded them to this country. These friends were as distressingly poor as themselves.

The voyage and the courtship together fanned into flame all the ardor and ambition of Meyer Guggenheim's nature. He aspired to become a man of wealth and power from the day he set foot as an alien, speaking an unknown tongue on American soil. Located in Philadelphia his first business enterprise was that of a stove polish peddler. As the boy was going through the little town of Bethlehem, Pennsylvania, he met a chemist, who became interested in the hustling young foreigner. Meyer asked the chemist to tell him how the stove polish he was peddling was made. The chemist analyzed the substance and wrote out the formula for him. The young peddler then became a manufacturer of stove polish on his own account and so doubled his profits. To stove blacking he soon added concentrated lye. He sold the lye by day, and by night he experimented with processes of manufacturing until he had a brand of lye which was a little better than the competing brands on the market. With stove polish and lye as his stock in trade and by dint of working early and late and exercising the greatest frugality, Meyer Guggenheim in five years after coming to America, was able to marry the girl whose love he had won on shipboard. Another prosperous voyage was undertaken — this time upon the matrimonial seas.

As might have been expected, the young couple who had sought America as the country in which to make their fortunes, began their domestic life in the most modest manner. They took a small house, which was managed with the greatest economy. Then children and money came in generous proportions. When Meyer Guggenheim had passed 40 he was a prosperous lace manufacturer in Philadelphia, with ten hostages to fortune gathered around his family table. It was indeed a family which any patriarch would have blessed.

The family held together clannishly for years, and exemplified the value of harmonious team work. It has been, on the whole, perhaps the most efficient family in the history of the nation.

The story which covers the somersault taken by the Guggenheims from the making of laces and embroideries to the mining and smelting of ores is interesting and unusual and is well worth telling.

It was in 1881 while the Guggenheims, father and seven boys, were busy with their manufacturing plant. One day there came one of those sudden panics which visit Wall Street like an equinoctial storm. Though the Guggenheims did not traffic in Wall Street and its lore was more or less Greek to them, this panic was the overt and direct cause of turning their energies into a business which paled the business of their lace factory, flourishing as it was, as does the harvest moon a glowworm in the grass. A friend of the family, who had come to grief by speculating in the market, rushed into the Guggenheim office told his plight and begged for help. He had been caught between the upper and nether millstones and needed money to save himself from immediate ruin. In imploring tones he said to Meyer Guggenheim:

"I have a silver mine in Leadville. I'll give you a half interest in it for $3,000."

Meyer Guggenheim knew no more about the operation of a mine than he did about differential calculus or the fourth dimension. It is not likely that he had the slightest idea in the world as to what a silver mine meant.

But a friend to him was a friend indeed and he was willing to come to the assistance of this friend. So he handed over the $3,000 and thereby became the owner of 50% of the Faraway silver mine in Colorado. Here entered what has since been so frequently referred to in his career as "Guggenheim luck."

Meyer Guggenheim struck it rich on the silver mine which came to him in this unexpected manner and he afterwards bought control of the property. He was not a full-fledged mining man, and he still gave his attention to his prosperous lace business.

Out in the West was a man to whom Guggenheim was selling his ore. This man was a tall, dynamic, dogmatic, magnetic enthusiast, who realized the possibilities of the smelting business and bethought himself to enlist the capital of Guggenheim in embarking in it. Old Meyer was verging on 60 and he was already rich. His business was one of the most substantial in Philadelphia and his sons were all trained together in the work of successfully continuing it. It would seem that the man who "came out of the West" had stacked up against a hard proposition in seeking to beguile the old man of the Guggenheims into financing his smelter nearly 3,000 miles away. But this bright, breezy Westerner met in Meyer Guggenheim a not unreceptive listener. The old man was not oblivious to the main chance, even though his coffers were already full and his first chance success in the mining business emboldened him to consider taking other chances in the mining business which might present themselves.

As the Westerner painted in rose colors the potentialities of the smelting industry, Meyer Guggenheim, lured by the inborn instinct for gain and unable to resist such enthusiasm and eloquence, yielded to the spell which the visitor wove. The Westerner told him that a smelter was not like a factory which ran only in the daytime. The operation of a smelter was the soundest business in the world.

The Swiss patriach was persuaded to finance the building of a large smelter at Pueblo, the westerner becoming its manager. He lacked, however, the business ability to make it succeed and before long the Guggenheims appreciated the fact that they had an elephant on their hands under his administration. The smelter proved a flat failure and the old man sent out two of his sons — Daniel and another — to save as much as they could out of the wreck.

That was only 30 years ago. At that time no Guggenheim had even seen a smelter. The business the sons had been brought up in was as remote as the poles from the smelting of ores, but there was truly a divinity which shaped their ends, rough-hew them as they would.

Daniel Guggenheim was the natural leader of the Guggenheim brothers. He and one of his brothers went West to rehabilitate the wreck at Pueblo or to rescue whatever they could from its remains. One by one the other brothers joined them, and the seven organized into a company under the name of M. Guggenheim & Sons. The father himself retired from the lace business, and sat down in a comfortable armchair in his sons' office to watch them make more money in a year than he had accumulated in a lifetime.

Although Daniel was the natural leader, every important question was debated and settled by vote. Morning, noon and night they talked smelting—smelting—smelting. They were absolute devotees of their business. Spurred on by their father, they studied every detail. As fast as the money came in, it was put back in improvements. For years after they had become rich the brothers had not even bought the houses they lived in.

For ten years the brothers paddled their own canoe. They secured no outside capital to back them—not even from their rich father. They then conceived the idea of forming the Guggenheim Exploration Co. This was the natural outgrowth of the smelting business. But it required more money than the brothers could afford to risk. They wanted a company which could command the services of engineers and experts.

Daniel Guggenheim came East with this idea firing his brain. At that time William C. Whitney towered a colossus in the lower financial district of the city. Daniel Guggenheim sought out Mr. Whitney with his prestige of 30 years of brilliant finance. "Mr. Dan" dinned the subject of an exploration company and its prospects into Whitney's ears for a week. Guggenheim was Whitney's shadow; every time he turned, the scion of the obscure Swiss Jew was at his elbow to suggest some new ramification of the mining exploration business. Finally Whitney, who knew a man when he met him and valued the man even above his scheme, finally capitulated and said: "Go ahead. I am with you."

With Whitney's capital and ability enlisted, the Guggenheims began their business of picking out and lining up the most wonderful array of mining properties in all the world. They did very little prospecting, because they considered that too much of a gamble. They sent their engineers to Mexico, to South America and throughout the West and bought up mining properties outright. They did this primarily in order to feed a steady supply of ores to their smelters. By this means they gained a variety of ores, which they combined in smelting mixtures in order to secure the best results.

The formation of the Guggenheim Exploration Co. led up to that of the American Smelting & Refining Co., of which Daniel Guggenheim is the head and front. It was in 1904 he became its president and thereby the foremost smelter in the world.

The Guggenheims have stuck very consistently to smelting. They have asked that they be permitted to adhere to their own business of smelting ore. When Charles M. Schwab, the genius of steel-making, bought the Montgomery-Shoshone and other mining interests in Nevada several years ago, he had an idea, born of his capacity for management, of engaging in the smelting business in that state himself. Daniel Guggenheim sent for Schwab, explained to him the complexities of the smelting business, and persuaded him to sign a long contract pledging to keep out of that industry and to send his ores to the Guggenheim smelter. Schwab's connection with Nevada mining was ill-fated and short-lived and he, no doubt, greatly appreciates the fact that Daniel Guggenheim influenced him as he did.

The Guggenheims have great smelting plants scattered throughout the United States, South America, Canada and Mexico. When business is good they have the products of the richest and the choicest mines brought to their doors and they coin money for their stockholders. When business is poor they take ore out of the ground from their own mines, add to their enormous wealth and still coin money for their stockholders. They have been able to buy the very richest of mines at bedrock prices. They deal direct with miners and employ a corps of the best engineers to inspect the properties under consideration.

Daniel Guggenheim is a generous man when his sympathies are aroused. The world has been told of his charitable impulses, as well as of his alleged self-seeking. After the San Francisco disaster Daniel Guggenheim, representing his firm, was the first to give aid. The instant the news of the disaster was wired to New York he telegraphed to an Oakland bank to place $50,000 in the hands of General Funston. And to show his common sense, he instructed that no red tape interfere and that the money be given to the people at once. He telegraphed to an Oakland truckman ordering him to send two drays immediately to the bank for the money and accordingly the money was taken to the stricken districts of San Francisco and distributed among the needy without delay. That was characteristic of Daniel Guggenheim; he acted while others talked. The Guggenheims maintain their residences in New York also their magnificent country homes in New Jersey at Elberton. They are distributors of benefactions upon so generous a scale that a special secretary is employed for this purpose — and in conclusion it may be said they do not proclaim their philanthropies.

A. R. ERSKINE

Alexander Russell Erskine worked his way up from one position to another until he became president of the Studebaker Corporation. He has said that he owes his business success to the experience he obtained as an auditor and bookkeeper.

The history of the Studebaker Corporation furnishes the background for the sketch of this forceful executive who proved so influential in developing one of the greatest industrial enterprises in the country.

ALEXANDER R. ERSKINE

ALEXANDER RUSSELL ERSKINE, former president of the Studebaker Corporation, came from one of the best known families in Alabama. He was born in Huntsville, Alabama, and started his business career as an office boy at 15 years of age in St. Louis, for $30 a month. His great-grandfather on his mother's side, Colonel Albert Russell, was a General in Washington's army, and was one of the founders of the town of Huntsville. He lacked schooling because he had to go to work when very young. Watching the newspapers he noticed a "Want Ad" for an office boy in a wholesale paper house. He got the job and worked there several years. When he left he was keeping books at a salary of $60 a month. When one considers that he has now in his employ a salesman who complained because he was only making $8,000 a year, Erskine's previous salary looks rather small.

Erskine had to have more money at this time and it became necessary to make a change, so we find him in the bookkeeping department of a wholesale drug house. Here he received $75 a month. Opportunity knocked again, after three years' service at the same salary. The books were kept in three sets of ledgers, a different bookkeeper having charge of each set. One of the men left and young Erskine suggested that he would keep both sets of books for $100 a month, saving the company $50, as the man who had quit was getting $75 a month. His work often kept him up until late at night. He was doing the work of two men, posting 1,000 entries every day. But the bills were always sent out on the last day of the month.

Then in 1898 the American Cotton Co. offered him the position of chief clerk in its St. Louis office, at a salary of $125 a month. This office was then handling 40% of its business. Then he went to New York City as its general auditor, after three years spent in St. Louis. The company failed in 1904.

In that year the president of the Yale & Towne Co.

requested him to come in and audit their books, and to make a report in which he was to offer recommendation for improvements in their methods.

The now world-famous "Yale" lock had its origin in the village of Newport, Herkimer county, New York, about the year 1840, when Linus Yale, Senior, began the manufacture for the first time of this new kind of lock. They were described as "tin tumbler locks" and were of great mechanical excellence.

Mr. Erskine was offered the further inducement that if the work he did was done to satisfaction he would be made treasurer of the company. This position was given him before he finished the audit. He was with this company long enough to revise their methods of the financial and accounting department and served on the executive committee. From there he went to the Underwood Typewriter Co. to fill the office of vice-president.

While much credit is due to the Studebakers for their Studebaker Co., of which the present corporation is an outgrowth, the recent leadership of Alexander Russell Erskine, president of the company, is deemed in the industrial world little short of remarkable.

There were five brothers among the Studebakers, who came over to this country in 1746, as part of the honest yeomanry of Rotterdam. These five brothers were descended from John Studebaker, who became a blacksmith and a wagon-builder in Gettysburg, Pennsylvania. This industry was established by him back in the early days of the 19th century. It taught him family habits of industry and careful frugality. In 1835 the family moved to Ashland, Ohio.

In 1850 two of the older boys, Clem and Henry, went to South Bend, Indiana, acting under the advice of their father. From this move came, two years later, the firm of H. & C. Studebaker. This firm started blacksmithing and wagon building. It had a capital of $68 and only two forges. They built two wagons the first year and one of these wagons was in constant use for 33 years.

Later John M. Studebaker came to South Bend and joined his brothers in their enterprise. The lure of California called, however, and took him Westward. At the age of nineteen he arrived in a California mining camp. His sole capital was 50c, but he had youth and all the hopes that characterized the "49ers" in those days. John M. worked at his trade and was able after a period of five years to return to South Bend with a capital of $8,000. With this he rehabilitated the firm of H. & C. Studebaker. The growth resulting from that start led directly to the launching of this corporation, with sales totaling in 1868, $360,619. Ten years later in 1878, its sales had risen to $1,190,872. In the next ten years it had climbed again to $2,039,461. In 1898 it had reached $3,227,716. In 1908 it had risen further to $5,959,790. In 1918, which was the beginning of the automobile business boom, its sales had jumped to $52,087,977. The last two years (1920-1921) its sales have totaled respectively $90,652,362 and $96,690,643.

The Studebaker Corporation was organized February 14, 1911, under the laws of New Jersey. It acquired the plants of the Studebaker Brothers Manufacturing Co. and the Everett-Metzger-Flaners Co. the latter company was formed in August, 1908, while the Studebaker company organized as early as 1865, and was known throughout the world as one of the finest mnaufacturers of wagons. The Studebaker Corporation devoted its entire business to the manufacturing of automobiles and automobile parts.

In answer to questions as to how he developed good executives and how the Studebaker Corporation maintains such unity of management and such a close cooperation among the different departments Mr. Erskine replied: "answering the last question first, away back in the early days, Henry and Clem Studebaker built this business for posterity. In sustaining its great name and upholding the principles of those rugged pioneers we have a tie that bars individualism and makes for a unity of effort that accounts in large measure for the splendid spirit of organization. Inspirationally we are always guided by such principles as were expressed in a speech by Peter H. Studebaker to a body of workmen in 1897, shortly before he died.

"Workmen, I know what it is to be poor: I know what it is to work for 50 cents a day and board myself. I know what it is to wish for the first white shirt; I know what it is to live week-in and week-out on mush and milk; I know what it is to sleep next to a clapboard roof and have the snow blow in and cover my head. I know what it is to stand on the outside of a circus tent and hear the music and the clown within, and wish that I had a quarter to take me in; I know more — I know what it is to look wistfully into a showcase with ginger-bread and wish I had a penny to buy some. Knowing these things from hard experience, I say it makes my blood boil to hear of any man in a waste of time and idleness."

After searching the country for a man whose record would justify his appointment as treasurer and member of the executive committee, the Studebaker Board of Directors offered the position to Alexander Russell Erskine. Mr. Erskine accepted the position, and was elected first vice-president in 1913 and became the president of the corporation in 1915. His record may be found in the growth of the business of the corporation. The year when the sales of all producers, except Ford and Studebaker, averaged about 55% in 1920, this firm actually increased sales 129%.

A statement of Studebaker's contribution to the War is apropos. Mr. Erskine tells it in the January, 1921, issue of the "Dodge Idea" in part as follows:

"Our pre-war position in the industry was one of leadership, but we sacrificed it in 1917 and 1918 by the substitution of war work for commercial production. We were neither dead nor asleep, as some folks thought, but were helping Uncle Sam right from the jump. When Ambassador von Bernstorff was handed his passports by President Wilson, we sent, besides a personal message of congratulation, the following official dispatch:

"South Bend, Indiana, Feb. 6, 1917,

"To the President, The White House, Washington, D. C.

"Studebaker factories of course are at the disposal of the Government. Any orders given us will receive preference and clear right-of-way.

"A. R. Erskine, President,
The Studebaker Corporation."

"President Wilson replied by an autographed letter as follows:

Washington, D. C., February 6, 1917.

"The White House

"My dear Mr. Erskine:

"Thank you for the generous assurances of your telegram of today. I greatly appreciate your pledge of co-operation.

"Sincerely yours,
"Woodrow Wilson."

"Although the declaration of War by Congress on April 6, 1917, was not made until two months after our telegram the War Department almost immediately thereafter began placing orders with us for prompt attention. Later, the Navy Department did likewise, and in 1918 the British Government ordered 5,000 military tractors from us, which were in production when the armistice was signed. While we had received numerous orders from the British, French and Russian Governments in 1914 and 1915, they were practically completed by 1916 and were engaged on our regular commercial work when the United States entered the war. The volume of war orders received and in prospect from the Government indicated that automobile production schedules must be immediately curtailed and hence on May 14th, our Finance Committee voted to reduce them 50%, with the result that only 22,020 cars were produced in the last eight months of the year. Schedules were again cut early in 1918, and in the late fall automobile manufacture was discontinued entirely.

"During 1918, we produced but 18,274 cars and when the armistice was signed our factories were engaged nearly 100% on war work. Altogether, we received over 160 different war orders, amounting to $31,000,000, from the United States Government. When the armistice was signed we were manufacturing at our Detroit plants gun carriages for the 4.7 guns shell parts, artillery wheel hubs, mine anchors, military tractors and sundry war supplies, while our South Bend plants were manufacturing artillery shells in three sizes, road track links for tanks, escort wagons, drinking water carts, combat wagons, escort wheels, artillery harness and other supplies and were about to commence production of forging and machining 155-m-m shells at the rate of 4,000 per day. From the standpoint of profits, our war business was unattractive, netting us only 4.8% on sales as against an approximate 12% that we expect from commercial sales. The conduct of the Studebaker Corporation during the war will always remain the proudest record in its history."

Mr. Erskine says the great progress of his business was made possible by adequate plant facilities costing $36,000,000, and an experienced, industrious and loyal organization which participates in the profits. There are special inducements which inspire men to greater efficiency and achievements . These are economically sound in principle and it has been found that payments of special rewards for certain results have contributed immensely to the success of their business. There are two classes of these special rewards, the first covering payments of labor for continuous service payable upon delivery of such service and the second covering payment of bonuses to management of net profits.

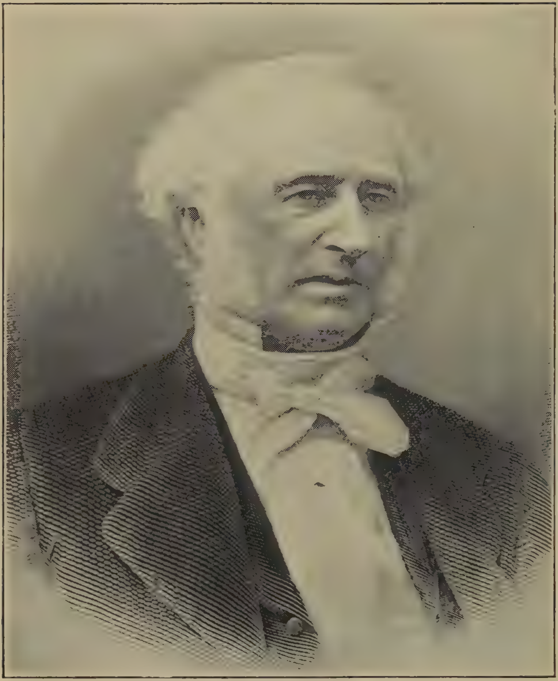
Mr. Erskine further said: "In directing the affairs of this corporation I am constantly depending upon the rudimentary lessons I learned in the days when I was an accountant. I consider a good working knowledge of accountancy essential to efficient executive administration, for no man can safely and wisely direct the affairs of his company without a close and intimate knowledge of its expenditures, and their bearing on his financial position and profit and loss.

"In administering the affairs of this corporation, I rely upon reports which come to my desk daily, weekly and monthly and permit without loss of time my putting my finger on any weak spots in our operation. All of our officers and department heads receive such reports, which are easily and regularly prepared from simple, direct records kept in all departments.

"About the hardest job executives have in a big manufacturing business is the constant supervision necessary to reduce errors and insure thoroughness by members of the organization. Ninety per cent of our people, unfortunately, are impulsive and jump at conclusions without stopping to consider whether they are in full possession of the facts of the case, of exercising that curiosity which leads one to question the statements based on mere opinion. The exercise of greater caution in reaching conclusions and taking action will prevent many mistakes. Get the facts!

"No man can run a complex business without facts in hand. 'What has been done with the money; where has it been spent? What are the costs? What are the ratios? What bearing have these ratios on the profits and loss account? It is easy enough to invent methods, but if they are not simple and direct enough to be economical in administration, and if the forms are not self-explanatory, they are not what they should be.

"Perhaps it is because I am a chartered accountant that I cannot get away from the idea that I must have right in front of my eyes a simple, condensed chart of how, why and where and in what ratio our funds are being distributed, and sales being made."



CORNELIUS VANDERBILT

Cornelius Vanderbilt might aptly be called "the Father of Modern Transportation." His name is indissolubly linked with the New York Central system of railroads, the main artery of the Empire State.

He was a giant in the first railroad era and a power in the securities market, the latter being the hammer with which he welded together one of the greatest transportation systems of the East. He is one of the mightiest factors in business progress that America has ever known.

CORNELIUS VANDERBILT

ONE of the oustanding landmarks of the business development of the nation is the history of the Vanderbilt family. The founder of this family was Commodore Cornelius Vanderbilt, who began life as a ferryman between New York City and Staten Island and in the fifteen years immediately following the Civil War amassed a fortune, estimated when he died, as being worth $105,000,000. Of that fortune he left $90,000,000 to his eldest son, William H. Vanderbilt. Seven years later this inheritance had almost doubled in value. The bulk of the fortune left by William H. was inherited by two sons, Cornelius and William K. A writer in the "Forum" in 1889 placed the wealth of these two grandsons at $100,000,000. Adding the fortunes of the other members of the family, the Vanderbilts then possessed about $300,000,000. A statistican, figuring twenty-two years later, estimated the actual and potential Vanderbilt fortune at $700,000,000. Commodore Vanderbilt was in his day the richest magnate in this country. His descendants today can probably muster as much money in railroad holdings, New York City property, personal belongings, etc., as any family in this country, with the possible exception of that of John D. Rockefeller.

Commodore Cornelius Vanderbilt, the founder of the family, was born on Staten Island in 1794. He began as a steamboat captain and went into the transportation business between New York and Philadelphia. He afterwards broadened his operations and in 1848 owned most of the profitable steamship lines leading from New York. In 1817, at the age of 23, he owned a few small vessels and estimated his wealth at $9,000. Then followed the California emigration fever of '49. He started ocean steamers in connection with the transit across the Isthmus of Panama. This business grew and at the height of his career as a shipowner, the Commodore owned 66 vessels. The finest of these, "The Vanderbilt," costing $800,000, he gave to the Government for a war vessel.

As American vessel-owning became unprofitable, Vanderbilt determined to abandon it and devote himself to railway management, having already bought largely in railway stocks. Here he laid the foundation of the vast Vanderbilt fortune. When he began, he estimated his fortune at $40,000,000. He got control of various railroads leading East, North and West from New York, buying the shares at low prices. His excellent methods improved their earning power, so that their value was greatly enhanced. The greatest of these corporations was the New York Central & Hudson River Railroad.

When the Commodore died, his estate was estimated at $105,000,000, which was left almost entirely to his son, William H. Vanderbilt. When William H. Vanderbilt died he bequeathed the bulk of his fortune, now estimated at $200,000,000, to his oldest sons, Cornelius, who died in 1889, and William K. Vanderbilt. The family is today housed in a row of palaces on Fifth Avenue near Central Park, and their colossal fortunes were for many years counted the greatest in the world. Just above the brick and brownstone Union League Club is the historic Vanderbilt house, where the old Commodore lived—a wide brownstone dwelling, with a carriage entrance into a small courtyard.

The Vanderbilt fortune, represents the financially expansive powers centered in modern New York as directed by corporation management and Stock Exchange ramifications.

The Vanderbilts are of Dutch descent. Old Cornelius Vanderbilt was born near Stapleton, Staten Island, New York, May 27, 1794. He was descended from Hans Aertsen Van der Bilt, a Dutch immigrant who came over from Holland about the year 1670, and settled upon a farm near Brooklyn. About sixty-five years later, his grandson, the great-grandfather of Cornelius Vanderbilt, went over to Staten Island and became the owner of a farm near New Dorp. Here he became converted to the doctrine of the Moravians, which influenced the religious thought of the family throughout several generations.

From this it is not a far cry to trace history back to the very beginnings of New York, for the city is of Dutch origin. There were the Dycks, the Ten Eycks, the Van Nesses, the Van Tassels, the Van Grolls, the Van Hoesens, the Van Giesons, the Van Blarcoms, the Van Winkles, the Van Dams, the Van Pelts, the Van Rippers, the Van Brunts. There were also the Van Hornes, the Van Hooks, the Van Bunschotens, the Van Gelders, the Van Arsdales, the Van Bummels, the Van der Belts and the Vanderbilts, the Vander Hoofs, the Vander Voorts, the Vander Lyns, the Vander Pools, and the Vander Spiegels. Besides these there came a troop of the Hoffmans, the Hooghmans, the Hogelbooms, the Rosebooms, the Ooothouts, the Quackenbosses, the Roerbacks, the Garrebrantzs, the Bensons, the Brouwers, the Waldrons, the Onderdonks, the Varra Vangers, the Schermerhornes, the Stoutenburgs, the Brinkerhoffs, the Bontcous, the Knickerbockers, the Hockstrassers, the Ten Breecheses, and the Tough Breecheses, with more worthies too numerous to mention.

The Knickerbocker horde had at its head the mighty Peter Stuyvesant, his brows knit, his teeth set, his fists clenched, almost breathing smoke, so fierce was the fire that reigned within his bosom. These were the hearty men of the Manhattoes and their no less hearty comrades.

Proceeding with our story, it is to be recalled that in the year 1609, old-style computation, March 25th, Henry Hudson, called by the Dutch historians, Hendrick, a sea-faring man of renown, who had learned to smoke tobacco under Sir Walter Raleigh, set sail from Holland in a stout vessel called the "Half Moon," being employed by the Dutch East India Co. to seek a northwest passage to China. Their ship was safely conducted to the coast of America, where on the 4th day of September, 1609, it entered the majestic bay which at this day expands its ample bosom before the City of New York, and which had never before been visited by any European.

The illustrious Hudson, engaged in a purely Dutch enterprise, discovered this beautiful island, adorned by the City of New York. The title of Hendrick Hudson to his discovery is fully vindicated. Having discovered the Hudson River and the Island of Manhattan and being satisfied that there was little likelihood of getting to China by that route, Hendrick Hudson returned from whence he set out, where he was received with great welcome by the East India company, who were very glad to get him back safe—with their ships. At a large meeting of the leading merchants and burgomasters of Amsterdam it was unanimously determined that, as munificent reward for the eminent services he had performed and the important discovery he had made, the River Hudson should be called after him, as it is to this day.

This was the quality of the stock from which Vanderbilt sprang. The father of Cornelius was a farmer in moderate circumstances, and might have given his son a good Holland education, if he would have taken it. He learned to read and write, whether he would or not, but that was the end of his doing with books. Arithmetic came to him naturally and in geography any map he cared to examine was indelibly stamped upon his memory. He was hardly more than a child when he began his intimacy with all of the coastlines that he could visit.

This was a wholesome life for a boy to lead. Staten Islanders were of necessity a maritime people. Among them were old sea-faring men, full of strange yarns and of varied nautical information. Here was a preparatory school for the boy who was to have so much to do with ships and shipping. At the early age of sixteen, young Vanderbilt showed signs of enterprise by running a boat of his own between New York and the Island. His father had sent the produce of his farm, with some from other farms, into the city in a sail-boat of his own. It was a stout craft, built for safety rather than speed, for the waves of the bay were sometimes rough sailing. But young Cornelius Vanderbilt proved himself so good a sailor that he was trusted to go and come alone. He was later the captain over the crew of a vessel designed to carry freight, but he was also willing to carry passengers as well. The produce carried was generally to be delivered for sale to market consignees, but there were exceptions and occasions arose for the exercise of judgment. It was a business of its own to be studied, and the Staten Island boy, as he grew up, obtained a thorough comprehension of his market, with its fluctuations. He made ventures of his own, before long, and his operations were conducted so well that at the age of 16 he became a ship-owner, buying and owning a better sail-boat than his father had.

There was money in the business and he prospered, growing taller and stronger while he did so. At 18 he not only owned two good boats, handled by hired crews, but was captain of a third and larger boat, and accordingly commander of a line that cut quite a figure in the trade and transportation of Staten Island. He kept his office and headquarters at the old farm-house for a period, but meanwhile he was scheming more extended enterprises.

At nineteen he married his cousin, Sophia Johnson, and moved to New York City, where he transacted business and made and kept his contracts, totally indifferent to the fact that he was not yet of age. In 1817 he associated himself with Thomas Gibbons in running the first steamer from New York and New Brunswick, N. J., serving as captain for several years. In 1829 he withdrew from the management of Gibbons' steamers, and for more than twenty years afterwards built and operated steamers of his own from New York to various points, all of which ventures proved very profitable.

By this time the strong qualities of young Vanderbilt's business genius were making themselves felt. It seemed as if every line of water transit between New York and other ports, small or great, was already filled, and some were apparently more than supplied. However, the keen observation of the young man had noted opportunities of increased efficiency. He began with both passenger traffic and freight between the city and several towns along the Hudson River and Long Island Sound. This was the day when steam was at hand but not yet fully arrived. He planned and had built, according to his several requirements, boats and schooners, of the best and latest models of steam vessels.

Before long, greater and greater encroachments were made by steam vessels upon the old-time craft. This was the change for which he was getting ready and when only twenty-three years of age, he made an arrangement to be captain of a steamer running as a freight and passenger ferry boat between New York and New Brunswick, N. J. For twelve years he worked for a nominal salary. All this time, however, he was developing mentally and in his financial resources. In 1827, at the age of thirty-three, he leased on his own account the ferry between New York and Elizabeth, N. J. This was already a promising line, but he at once made it of greater value by building new and better boats for it. In 1829 he withdrew from his former connections and for more than twenty years afterwards built and operated steamers of his own from New York to various points, all of which proved very profitable.

There were few millionaires in the United States in the year 1836. The Commodore was loosely estimated to be worth $500,000. This was probably much too high an estimate and nearly the whole amount was invested in property which required constant activity to conserve its value. It was not large enough to enable its owner to maintain war, campaign after campaign, over too broad a field, in opposition to powerful and capable competitors.

The Hudson River interest was therefore disposed of to Robert L. Stevens, the Commodore restricting himself, for a time, to Long Island Sound and its growing development. The trade of this great waterway had not yet been materially interefered with by railway competition, but anything like mastery of it called for a further application of the fundamental principle of improvement — the best equipment handled by the best men. If again and again weaker rivals were crushed through lower rates and better accommodations, the methods of the campaign by which they were beaten were not injurious to the public interest. When in 1849 the California gold craze broke out, he was quick to seize the opportunity it offered. He promptly placed steamers upon the Nicaragua route to San Francisco and began to gather a golden harvest even before any returns had been garnered by the miners.

Four years later, in 1853, the Commodore sold out this part of his enterprise and determined upon enjoying a vacation, he had built, upon general designs of his own, a vessel which he named the "North Star." In her construction, tonnage and appointments, she surpassed any other steam yacht then in existence and he sailed in her to the Old World, with his family and a chosen party of friends. It was a long pleasure cruise. He returned to America to find a new war upon his hands, and he entered into it with vigor. The parties to whom he had sold the Nicaragua line were disputing the conditions of their purchase and were trying to evade payment. After a sharp struggle, they were forced into bankruptcy.

During the eleven years that followed, his profits amounted to $11,000,000. He was not the richest man in America, but he stood among the foremost half dozen. England was then the mistress of the ocean-carrying business. The United States stood next in rank—but mainly in wooden sailing vessels. Only one important line of American steamers, the Collins, ran upon the Atlantic ferry. There had been signs of an approaching collision between England and Russia, and it was plainly to be foreseen that such an event would offer an opportunity to Americans partially to curb the development of the English merchant marine. That France also was involved increased the chances, and the Commodore prepared to take advantage of them.

His idea was to institute a long campaign for the carrying trade between Europe and America and he began it at the outbreak of the Crimean War, in 1853. Using whatever other ships he owned or could obtain, he built three new boats, the best and swiftest, and established them as a line between New York and Havre. The Crimean War was ended in 1856, and before that time the English ship interest had more than recovered from its temporary eclipse. It was once more exceedingly difficult for any American line to maintain what was, for many reasons, an unequal contest. The great English steamship interest was well known to be aided by Government subsidies, in one form or another, as well as enjoying other advantages. The Collins line was maintained against them, principally because of United States mail contracts.

It was a fatal blow to the Collins line when the Vanderbilt interests proposed to carry the mails for nothing. The payments ceased; the Collins steamers shortly were withdrawn. The Commodore was left alone in the field. However, in the struggle he had enabled his European opponents to concentrate against him and they forced him to give up the fight.

Long before this, however, Mr. Vanderbilt's own account books, and the reports of other steamboat men, informed him how the railways were taking away the carrying business of the Hudson and the Sound. The latter was of less importance, but the rails, parallel with the river, reached on, westward, as far as the future of the country might warrant tracks for them. These lines of transportation had been so managed that their record had been largely one of losses, and the prices of their stocks accordingly ruled low.

As early as 1844, Mr. Vanderbilt began to buy shares of the New York & New Haven, then at a low figure, without attracting attention. It was not until the close of the Crimean War, in 1856, that he was known to be drawing out his interest from the steamboat lines on the Sound. In nearly the same manner he acquired and steadily increased an interest in the New York and Harlem road, the shares of which were neglected on the Exchange. He was biding his time and setting his capital free, but too much of it was as yet invested in ships and steamers and their management could not be neglected without incurring disastrous losses.

It looked as if these setbacks had come to him, as to other American ship owners, with the outbreak of the Civil War, in 1861. The commercial marine of the United States was indeed soon swept from the sea, and the carrying trade of the world passed into other hands altogether. At once, however, there was a war demand for such craft as could be fitted up as light cruisers or could serve as transports for troops and army supplies. The Spring of 1862 brought him an exceptional opportunity. The Monitor and the Merrimac had fought their historic battle, in Hampton Roads.

With the first news of the appearance of the Merrimac and of the destruction of the United States wooden war-vessels, the patriotism of the Commodore took tangible expression. He presented his best steamship, "The Vanderbilt," to the United States and performed services of immense value.

At the close of the war, in 1866, the patriotic giver received from Congress a vote of thanks and a gold medal. Mr. Vanderbilt then decided permanently to withdraw his capital from his maritime investments with their recommendations in order to reinvest it in rails and rolling stock.

A year later, in 1863, he experienced his first important Railway and Stock Exchange campaign and he fought it through what seemed inevitable defeat, to a victory which opened the way to a long series of brilliant successes.

Owing to long-continued mismanagement and other causes, the stock of the Harlem Railroad was selling in 1863 at only $10 a share. It was easy for a man with millions of released capital to buy a controlling interest, but there were those who wondered what he could do with it, even as a Wall Street shuttle-cock. His lifelong principle to develop and improve was not understood by mere speculators. He was also buying shares of the Hudson River road, in the neighborhood of $75 a share. His first movement was to obtain a charter for a system of New York City street railways connecting with the road, including a line traversing Broadway. Up went the stock to par, but daring and skilful foes were preparing an attack. Prominent Wall Street operators entered into combination with controlling politicians and sold the stock short, or for future delivery, while the city government prepared to rescind the Broadway part of the new franchise, considered its greatest element in its value.

The stock went down, the franchise was restricted to narrower limits and still the operators sold and sold, to push their supposed victim into oblivion. What they did not know was that the opposing general was quite willing to risk his resources and was buying all they offered. He continued the policy until the entire stock of the road was in his hands and men who had contracts out for its delivery must buy of him. That their settlements were made at high prices was a matter of course, but the plans of the victor included a permanent increase of actual value as well as in the selling price.

His purchases had now given him control of the Hudson River road also, and he sent to the Legislature a bill providing for the union of the two franchises. There he was again confronted with the financial and political clique of stock operators led by some of the keenest men on the Street and also in Albany. The stock had risen to one hundred and fifty when they began to "bear" it. Down it went and they seemed to be making money and beating their adversary all the way, until its price was lower than that at which he at the first began to purchase. He and his friends, however, were obligingly accepting all offers, until the outstanding short contracts covered twenty-seven thousand more shares than had ever been issued.

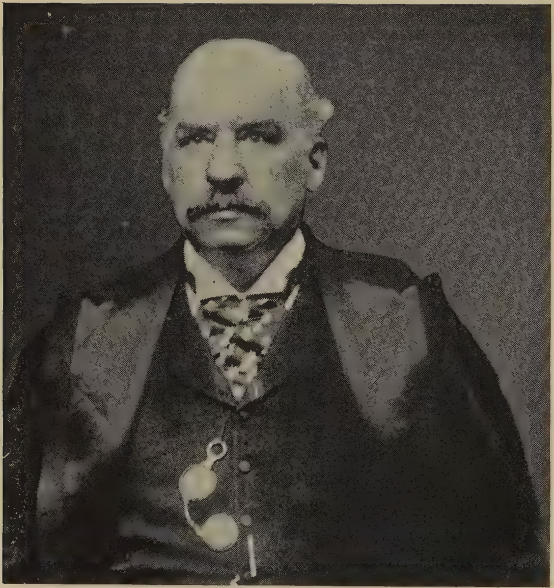
It was a stirring day when this fact came to light and it was necessary for the Commodore, in order to avert a general panic, to settle with the associated shorts at an average price of $285 per share. His profits were enormous. The two roads were made one. Mr. Vanderbilt assumed the presidency of the new corporation with a nominal board of directors. He knew all the items in railway construction and he determined to use only the very best equipment in order to furnish the maximum efficiency in all its transportation service.

Not content with the improvement in the roads under Mr. Vanderbilt's control, which was quite phenomenal, the Commodore led his financial forces westward. By obtaining control of the Lake Shore, Canada Southern and Michigan Central, he completed his relations with the commerce of the Great Lakes and reached Chicago. From this great centre of trade he pushed on into the West and Northwest country and formed connections across the continent to the Pacific. Almost every successive step involved a contest, more or less severe, but he met with no more perplexing adversaries than those with whom he contended, at the very outset, in a campaign aimed against the then competing management of the Erie, or "New York, Lake Erie & Western," railway. The leaders upon the opposite side were Daniel Drew, Jay Gould, James Fisk and other well-known powers of the Street. Never before or since have such tactics been experienced in the annals of American stock operations and its details are by no means uplifting.

The Commodore was at one time beaten, with a loss of $7,000,000 by means of a fradulent over-issue of Erie shares, but he afterwards justly recovered nearly $5,000,000 of it, after a contest in the courts. His real success, however, consisted in that finally his own great railway system was left without an important rival nearer than the more southerly east-and-west trunk lines. With these it was afterward to enter into a number of brief, spasmodic competions for the business of the West.

Mr. Vanderbilt's business life grew somewhat less militant toward the close, but his militancy could not altogether cease until the very end. This came, in New York City, January 4th, 1877. His estate, with the exception of a million previously given to Vanderbilt University, at Nashville, Tennessee, and $50,000 to the Church of the Strangers in New York, went to his children, the larger part going to his son, William H. Vanderbilt.

One of the show places of New York City is the Vanderbilt mansion on 5th Avenue designed from the famous Chateau Clois in France — built by Cornelius Vanderbilt, grandson of Cornelius, the ferryman! The Vanderbilt University, a co-educational institution, was changed from its former name, the Central University of the M. E. Church, South, in honor of Cornelius Vanderbilt, who gave $1,000,000 to it. This munificent from members of the Vanderbilt family and by contributions donation has been supplemented by other monetary donations from Nashville citizens.



JOHN PIERPONT MORGAN, SR.

"Morgan" and "Money" are names practically synonymous in the minds of the present generation. The name of Morgan is symbolic of millions—yes, billions of dollars.

Morgan stood for a new era in business—an era of big business, matching the bigness of the United States.

He has a lasting monument—the United States Steel Corporation. Great as were the outcries of "trust" when it was formed, abundant praise is now given to the man whose brain conceived it.

Truly the name John Pierpont Morgan stands for Progress.

JOHN P. MORGAN, SR.

JOHN PIERPONT MORGAN, a man of sagacity and genius, belonging strictly to generalizing and organizing lines of banking and business, the central, supreme head of our big business system in his day, was born at Hartford, Connecticut, April 17, 1837. He died prior to the outbreak of the World War, with the prestige of a billion and a half dollar steel company to his credit, checked up and approved by the Government. He was the biggest figure in world finance, and his influence remains to this day. He commanded the confidence of Administration and business circles to an extent enjoyed by no other banker or capitalist in this country.

Mr. Morgan was educated at the Boston English High School and the University of Gottingen, Germany. He began his eventful career as a banker in 1857 in New York City. In 1860 he was appointed the American agent of the London firm of George Peabody & Co. In 1864 he became one of the firm of Dabney, Morgan & Co., and in 1871 he became a partner of the Drexels. He took a lively interest in railroad management and was director in a number of roads and active in the reorganization and development of lines that had failed in other hands. Mr. Morgan's Steel underwriting brought into existence the billion and a half dollar corporation and the million dollar salary. Charles M. Schwab, the young representative of Carnegie, was made head of the new corporation at a salary of $1,000,000 a year. His was probably the first salary amounting to that figure.

The story of Morgan's handling of the United States Steel Corporation is a long one. It would include stories about James R. Keene's great coup in the market, when he effected the most remarkable distribution of securities ever known in Wall Street. In the early part of 1901, the late John W. Gates, known to popular fame through his readiness to "bet a million" on any and all occasions, was sitting with some friends in a hotel and amazed them all by saying: "I can give you a piece of news. There is going to be a billion dollar corporation."

At that time the country had heard of billion dollar Congresses. Somebody had retorted that this was a billion dollar country. But the billion dollar corporation was yet to be sprung upon the country. It came in the spring of 1901, under that sign which has always conquered, the house of J. P. Morgan & Co., and it was instead — wonder of wonders — a billion and a half corporation. James R. Keene, the most adroit and resourceful operator in stocks since Jay Gould, when told of the project is reported to have said: "It is simply impossible. They could never distribute the stock. Think of it — half a billion dollars common alone!"

Yet a few months later the Morgan underwriters and promoters called in Keene to undertake this vast distribution.

Mr. Morgan's method of underwriting the big corporation was that of setting down the names of his banking associates who were elected for inclusion in the underwriting, together with the amounts which were allotted to them to take care of. The distribution of these underwriting allotments was made in New York, Boston and elsewhere. These bankers agreed to undertake to dispose of their allotments exactly as Mr. Morgan apportioned them. By reason of the mere word of Morgan, this underwriting had the predestination of success from the beginning.

The dogmatic and domineering Morgan was, up to the end of his career, a man not to be trifled with. More than anyone in the financial world, what Morgan said "went." Daniel Webster was called a "steam engine in breeches." Morgan was an irresistible dynamo — a living, breathing, "ungetaroundable" ultimatum. He operated naturally and traditionally on the bull side of things and when he announced in April, 1901, the United States Steel Corporation, authorized capitalization $1,500,000,000, it set loose a veritable orgy of speculation. It was a "modern instance" of finance. It was claimed then by economists and publicists that the United States Steel Corporation absolutely flew in the face of the Sherman Anti-Trust Law. The legality of the Steel Trust was not passed upon at its inception and its stock became the most widely distributed of any in the country.

It has been the popular favorite of the small investor from all sections of the country, a large percentage of whom, up to the Liberty Bond flotation, have held no other securities. The steel market, prior to the formation of this monster corporation, had been passing through what Carnegie called the "pauper stage." Depression, lasting from 1893 to 1907, had resulted in the trade going to pieces. The price of steel rails had dropped from $35 to $15 a ton. With five years of depression in the steel trade, when the magic name of Morgan was invoked, speculation in the new stock was unprecedented. It is estimated that the total capitalization of the company was handled back and forth in the market more than forty times in the first ten years of trading. Every holder of steel common within these first ten years would have had to sell and buy back the entire capitalization of the company four times a year.

The formation of the United States Steel Corporation was the apex in the great career of J. P. Morgan. It was the most gigantic combination of capital ever brought together, before or since. When, ten years after the formation of the corporation, it was engaged in a fight against dissolution by the government, which had successfully ordered the dissolution of the Standard Oil Co. and the American Tobacco Co., the story of how the combination came to be formed which resulted in the establishment of the Steel Corporation was recounted by Judge Elbert H. Gary, the chairman of the board of directors of the corporation, who told an interesting story of the genesis of the United States Steel Corporation.

In this testimony he contradicted that given by the late John W. Gates, to the effect that threats by Andrew Carnegie to build rival railroads and tube works induced Mr. Morgan to institute negotiations culminating in the gigantic Steel Corporation. Judge Gary also said that if the late President Roosevelt had not approved of the absorption of the Tennessee Coal & Iron Co. by the United States Steel Corporation, he (Judge Gary) never would have voted to consummate that project. The Tennesee company, it will be recalled, was taken over to avert the failure of the New York brokerage house of Moore & Schley, and to stay in the banking world in the panic year of 1907. Financial frenzy possessed New York in that panic. It would have been very easy for it to have gone beyond all bounds and affected the entire country. Every night during that time, forty or fifty leading bankers of New York were gathered in J. P. Morgan's library discussing the situation, striving as best they could to give support to the weaker banks and prevent spread of the panic. From day to day these men did not know what bank would next be weakened by a run of depositors. Any man interested in the banks of New York at that time would no more think of doing anything to injure any other bank than he would think of throwing a lighted match into a powder magazine.

While telling how the United States Steel Corporation was projected, Judge Gary related the following story: 'The Federal Steel Co. had been in existence about two years and a half. I was its president. This was some time in 1900 and Mr. Frick came to my office and suggested that the Federal Steel Co. could be very much improved and he believed the Carnegie steel interests were for sale. That was the first suggestion, in my opinion, which led to the organization of the United States Steel Corporation. After Mr. Frick had talked to me, I spoke to Mr. Morgan about it, and he suggested that other directors of the Federal Steel Co. be consulted regarding the Carnegie proposition. Mr. Frick talked with H. H. Rogers and other directors of the Federal Steel Co. about it, but nothing came of it at that particular time.

"The next thing I heard was that W. H. Moore and others had secured an option from Mr. Carnegie for the sale of his steel plants. I had nothing to do with that option, but I knew that the Moores consulted with the First National Bank of New York regarding the option, and that officers of the bank consulted with Mr. Morgan. Mr. Morgan sent a representative of his firm to discuss the question of utilizing the option on the Carnegie steel interests. As presented to me, I did not think much of it and the matter was dropped. Soon after that Charles M. Schwab suggested to me that the Carnegie Steel Co. might be acquired by the Federal Steel Co. and I determined again to speak to Mr. Morgan about it, knowing that such a deal would involve financial backing. Mr. Morgan then did not give much encouragement.

"I did not report to Mr. Schwab about my conference with Mr. Morgan, but he came to see me several times afterwards, and about that time J. Edward Simmons, president of the Clearing House Association of New York, gave a dinner, at the request of Mr. Frick, to bankers and men interested in the steel business. Mr. Schwab, Mr. Morgan and others were present and Mr. Schwab made a statement which made quite an impression on Mr. Morgan concerning the Carnegie Steel Co., a description of its export business, its costs of production and the like. I was not there, but I have no doubt that Mr. Schwab had in mind the advantages of a consolidation of steel interests.

"The next thing I heard about it was on a Sunday morning, not long after this dinner, when Mr. Robert Bacon, then a partner in the firm of J. P. Morgan Co., came to my home. He said that the night before Mr. Schwab had surprised Mr. Morgan by showing him a letter from Mr. Carnegie stating that he would sell his steel property and take bonds in payment for it. There had been a conference at Morgan's house; Mr. Bacon did not tell me anything about Mr. J. W. Gates having been there. I never heard that he was there until I read his testimony before this committee in which he said he was at Mr. Morgan's house and that the plan of the United States Steel Corporation was formulated there. I can not see how it could be that such plans were made that night.

"Mr. Bacon said that Mr. Schwab had submitted the Carnegie letter, which fixed a price for the steel plants and that Mr. Morgan had told him to submit the whole matter to me. We went over the whole matter until lunch time and Mr. Bacon went to see Mr. Morgan and came back and we spent the entire evening going over the matter. At that time the Federal Steel Co. was in need of finishing mills and sought a corporation of sufficient strength to increase its lines of business and particularly its export trade, which was then small. It was necessary to increase its export trade in order that this business could get its fair share of the business from neutral points. We had a great deal of discussion about Mr. Carnegie's price, I having known that two years before he had offered to sell for a much less sum, but realized that the Carnegie company had increased its earning capacity and its value."

The upshot was that Mr. Morgan headed the group which bought out Carnegie's share of the Carnegie Steel company for $320,000,000. It is said that a few months later when Mr. Morgan and Mr. Carnegie happened to meet on a steamer bound for Europe, Mr. Carnegie expressed the opinion that Mr. Morgan would have paid him more for his interests. "I would, had I been asked," was the blunt retort of Mr. Morgan. It is stated that after that Mr. Carnegie did not relish his meals on the steamer.

In the first ten years' trading of United States Steel on the New York Stock Exchange and other markets, it is recorded that there were more than 200,000,000 shares of common stock dealt in. In the early years of its history the common stock sold for from $50 to $65 a share, afterwards slumping to $8.75 a share. However, this loss was only to those who had sold out on the slump. There were 100,000 shareholders which were placed on its books. Years after the formation of the great company, the slump in the market came while Mr. Morgan was abroad. On his return, he gave to the public his famous phrase, "undigested securities." The late James J. Hill, who was a great epigram maker, paraphrased this into "indigestible securities."

Ten years after the formation of the United States Steel Corporation, the representatives of nearly two-thirds of all the copper mines in America met in conference at New York City, and it was the universal opinion that a syndicate, headed by Mr. Morgan, including the foreign house of Rothschild, should unite their efforts to do for copper what Mr. Morgan, a decade ago, had done for steel.

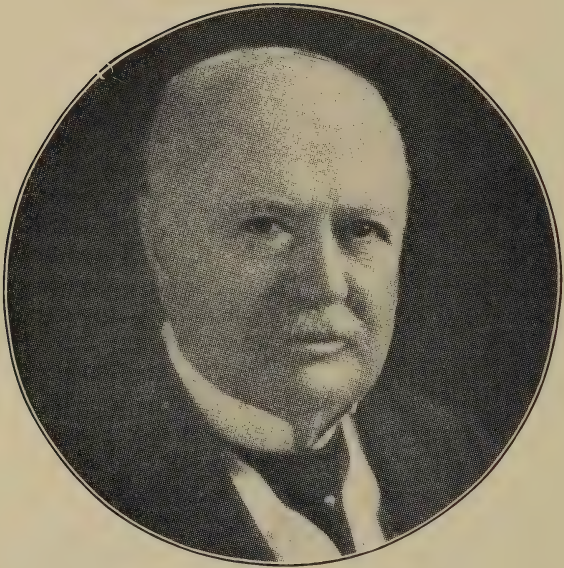
The panic of 1907, to go back a little, precipitated by Heinze and Morse, interrupted plans for the general electrification of railroads and the suburban service of the great trunk lines of the country. That work remains yet to be done. At that time there were less than 700 miles out of approximately 250,000 miles of American railways — over 50,000 of which were directly under the Morgan control — which were electrically propelled. Two years later — in 1909 — with the price of copper around 13 cents per pound, or half of the high price of 1907, the time seemed propitious for taking up again this tremendous transition from steam to electricity. The Morgan interests were distinctively with the railroads, and so this proposition was of the most vital concern to J. P. Morgan. At that time there were several competitive groups in the copper industry, the Guggenheims and Amalgamated apparently being most at loggerheads, although the Phelps-Dodge and Calumet & Hecla interests had stood aloof and maintained an attitude of neutrality. It took a man of the Morgan type to bring these conflicting elements together. The series of conferences referred to began on November 14, 1909, at which time the plan was suggested to Mr. Morgan of combining the copper industry in accordance with the plans and specifications proposed.

Mr. Morgan's co-operation could only be secured through a distinct understanding that the participants in the merger would not jump the price of copper to the consumer to an exorbitant figure. While the copper merger was under consideration, the health of Mr. Morgan began to fail and he was obliged to go abroad. Then it was that death overtook him, in Rome, and so the copper merger, patterned after the steel merger, was dropped and no figure has appeared since that time of sufficient stature to take it up. It demanded the energies of an organizer and consolidator of industries interrelated with the handling and manufacturing of raw materials.

Mr. Morgan nevertheless was quite a factor in the copper industry. Marcus Daly had come to New York in the latter 90's to do business with Henry H. Rogers in the formation of Amalgamated and it was to Mr. Morgan that Marcus Daly's widow went to represent him. A great deal of Mrs. Daly's money was invested in Alaska enterprises and through its trusteeship Mr. Morgan perforce became identified with James B. Haggin and the Hearst family in the Cerro de Pasco mine. When he became identified with the Copper River Railroad and the copper deposits of Alaska, it was simply in sequence and as a necessary step for him, in view of his already vast interests in the fisheries and steamship transportation of the Northwest. The incident of how Mr. Morgan came to be interested in Alaska is worth relating.

When Richard Onffroy, a financial dreamer, promoted the Pacific Packing & Navigation Co., with the object of consolidating all the salmon fishing interests on the Pacific Coast, Mr. Morgan became interested. The company, top-heavy with its load of capitalization, at length collapsed and among the losers were Mr. Morgan and some of his Wall Street associates. John Rosens, who had been a clothing dealer in Chicago, then an Alaska operator, and who later obtained valuable fur-trading and fishing concessions in Siberia from the Czar of Russia, saw how Mr. Morgan might save something from the wreck and laid his scheme before the New York financier. The result was that the properties were taken over at receiver's sale, the Guggenheims became a party to it, and at the head of the new salmon fishing concern, Mr. Morgan and his friends placed Captain H. D. Jarvis. Mr. Morgan took hold with the Guggenheims in this salmon fishing concern, and beginning with that, the Morgan-Guggenheim syndicate came to be identified with practically every leading activity in the Northland.

Mr. Morgan was, during his lifetime, a generous contributor to the New York Protestant Episcopal Cathedral of St. John the Divine, as well as to the Metropolitan Museum of Arts. Mr. Morgan was a natural monarch among men, whether dealing with kings, politicians or financiers. He rode full panoplied in the early 70's into the government bond situation to dispute supremacy with that famous old war-time financier, superb advertiser and pioneer press agent, Jay Cooke. He formed in the Steel Corporation the biggest combination of capital in the history of the world. He was essentially an organizer and consolidator of great business enterprises. We shall hardly look upon his like again.



SAMUEL P. COLT

By virtue of being for twenty years head of the United States Rubber Co., Colonel Colt became one of the big figures in America's industrial history.

His creed was hard work, but hard work was tempered by his naturally genial manner and kindly sympathy. Those who knew him will long remember the "Colt smile." He was one of the highest type of America's industrial titans.

SAMUEL P. COLT

COLONEL SAMUEL POMEROY COLT, chairman of the board of directors of the United States Rubber Corporation, chairman of the board of directors and founder of the Industrial Trust Co., director in more than a score of other big corporations, Attorney-General of Rhode Island, and for more than a quarter of a century one of Rhode Island's leading citizens, passed away at his home in Bristol, Rhode Island, August 13, 1921.

He was born in Paterson, New Jersey, January 10, 1852. He was the son of Christopher and Theodora (DeWolf) Colt. In his boyhood days he attended school in Hartford, Connecticut, and Bristol, Rhode Island. He later attended Anthons Grammar School, New York City. He was a nephew of Samuel Colt, for whom he was named, the inventor of the world famous Colt revolver and founder of the Colt Patent Firearms Manufacturing Co., of Hartford, Connecticut.

In 1870, when Colonel Colt was 18 years of age, he entered the Massachusetts Institute of Technology, of Boston, graduating in 1873. Following his graduation, he spent a year traveling in Europe, and on his return in the fall of 1874, entered Columbia Law School. He graduated from that institution in 1876, with the degree of LL. B. He was admitted to the New York Bar in May, 1876, and successfully passed the Rhode Island Bar examination on January 1, 1877. He studied law in the office of Thurston & Ripley, of Providence, R. I., and followed the legal profession for some years.

On January 12, 1881, Colonel Colt married Elizabeth Mitchelson Bullock, daughter of the late J. Russell and Susan Amelia (DeWolf) Bullock. Three children were born of the marriage, Samuel P., Jr., born on October 16, 1881, who died November 4, 1890; Russell G., born October 1, 1882, and Roswell C., born October 16, 1889.

In 1887 Colonel Colt founded the Industrial Trust Co. and was president of that institution from the date of its foundation up to 1908. He reorganized the National India Rubber Co. of Bristol, in 1888 and held the position of president of the company from the time of its reorganization. He was made president of the United States Rubber Co. in 1901. In addition to these, he also held offices in upwards of forty other corporations.

Colonel Colt was made a member of the Governor's staff with the rank of Colonel in 1875, when Henry Lippitt was elected Governor. He was aide to Governor Lippitt until 1877.

He was a member of the Rhode Island General Assembly for three years, being elected from Bristol in 1876. He served in the Legislature until 1879.

In 1879 Colonel Colt was appointed to the office of assistant attorney-general and in 1882 was elected to the office of attorney-general. He served in that capacity for three years.

Following the election of Governor Garvin by nearly 8,000 plurality in 1902, after the biggest street car strike the State of Rhode Island had known, the Republicans insisted upon Governor Colt opposing Garvin for Governor in 1903 and he was defeated by a very small margin.

In the three-cornered contest for the United States Senatorship in 1907, when 81 ballots were cast, Colonel Colt was the Republican candidate and led throughout from January 16 to April 23, the Republican vote being divided between Colonel Colt and Senator George Peabody Wetmore. Colonel R. H. I. Goddard was the Democratic-Lincoln Party candidate. There was no election until January 21, 1908, when Colonel Colt having retired from the contest, Senator Wetmore won out.

When the time came around again to choose a United States Senator, Colonel Colt's friends demanded that he once more be a candidate. Preliminary meetings were held and the sentiment appeared to be that Colonel Colt would get the Republican nomination by a very large margin. When the time finally came for him formally to enter, Colonel Colt called his friends together and told them that, in view of the fact that the country at large was so opposed to the domination of big business that the corporation to which he belonged, particularly the United States Rubber Co., of which he was at that time president, brought to bear all its influence to induce him to retire from the contest for the nomination, which, he told his friends, he very reluctantly did. In consequence the nomination and election went to Henry E. Lippitt.

United States Senator Le Baron Bradford Colt, is a brother of Colonel Colt. The Colt brothers in maternal line descend from Charles DeWolf, of Quadeloupe, one of the French West Indies, who is the ancestor of the Rhode Island DeWolfs. Charles DeWolf was of Connecticut ancestry, fourth in line from Baltashar DeWolf, the first known American ancestor of the Rhode Island family.

At "Linden Place" on Hope Street, Bristol, Rhode Island, where Colonel Colt died, is the old General George DeWolf homestead, and has associated with it much of historic interest. It is one of the finest residences in the central part of the town of Bristol. It is of colonial architecture with a long approach of marble pavement. Its porte cochere is of lofty Corinthian columns and its old-fashioned balustrades are of elaborate design.

The house was built in 1811 at a cost of $65,000 by General George De Wolf. In his house President Munroe was entertained by the General in 1817. In 1883 President Arthur was a guest at Linden Place, and in the earlier days President Jackson, whose portrait still hangs in the spacious hall, was a caller.

Colonel Colt was a generous benefactor to the town of Bristol. The Colt Memorial High School, erected only a short time ago, was built by him and presented to the town, and the beautiful Colt driveway, with the artistic statuary adorning it, is another of the gifts made to the town in which he resided. The driveway is one of the most popular routes of automobilists and affords a view of both Mount Hope and Narragansett Bay.

His farm at Poppoquash, one of the model institutes of its kind in the country, was the scene of many functions, at which his associates as well as his many other friends were guests.

Colonel Colt was identified with the following corporations: American Commerce Co., director; Atlantic Coast Lumber Corporation, chairman of board of directors; Bristol and Warren Water Works, president and director; Canadian Consolidated Rubber Co., Ltd., director; Dominion Tire Co., Ltd., director; General Rubber Co., chairman board of directors; General Rubber Co. of Brazil, chairman board of directors; General Rubber Co., Ltd., of London, director; Holland American Plantation Co., Ltd., chairman board of directors; Industrial Trust Co., chairman board of directors; Joseph Banigan Rubber Co., director; Maiden Lane Realty Co., director; Marvel Rubber Co., president and director; Mechanical Fabric Co., chairman board of directors; Mayer Runbber Co., director; Narragansett Electric Lighting Co., director; National India Rubber Co., president and director; Naugatuck Chemical Co., director; Netherland Lagakat Rubber Co., chairman board of directors; New Brunswick Rubber Co., director; New England Telephone & Telegraph Co., director; Newport (R. I.) Trust Co., director; Oneida Timber Co., director; Otter Creek Boom & Lumber Co., director; Providence "Tribune" and Providence Telephone Co., director; Revere Rubber Co., chairman board of directors.

The death of Colonel Colt undoubtedly removed the foremost executive of the United States Rubber Corporation, under whose guidance the company expanded so wonderfully. His vision together with his genius in inspiring faith among his associates and in financial circles are gone. But the company remains a vast organization, efficiently guided and with an exceptionally able directorate. The company has $200,000,000, authorized capital. It is a manufacturer of rubber boots and shoes, automobile tires, druggists sundries, mechanical goods, insulated wire, etc. Through the General Rubber Co. it controls a large plant in Sumatra. It is far from a one-man company and it is difficult to see, even with Colonel Colt gone, how its strong position in the tire and footwear field can be impaired.

The Providence, R. I., "Tribune" the day following Col. Colt's death carried this editorial tribute:

"Samuel Pomeroy Colt, president of the Providence 'Tribune' Co. and officially connected in various capacities with a large number of other corporations, who died this afternoon at his loved ancestral home in Bristol, was the most successful business man ever developed in Rhode Island surroundings, measured by the difference between the modest resources with which he began his financial career and the fortune which he ultimately accumulated. Other Rhode Islanders — Colonel Colt was a Rhode Islander in all but his birth — have attained large financial powers by building on an inheritance of great wealth. He won his high and influential place in the business world by his own efforts.

"He was the kind of business man that may be said to be born rather than made. His first start in life, however, was for another goal than that which later arose before him in his ambitious dreams. He had no small measure of the kind of ability which has made his brother, Senator Colt, a leader in the profession of law and in public life and he was already advancing rapidly as a lawyer, with a promising political career before him, when the remarkable genius for business which he possessed, perhaps not previously known to himself and certainly not suspected by his associates at that time, asserted itself in the compelling way that genius has, and he turned aside to make a second start in life, in constructive work on a large scale in banking and industry.

"The road on which he made this second start was to prove a difficult, laborious and sometimes unfriendly one and from its often staggering responsibilities and exactions he was to get release only at death's call. It is sometimes said that the ability to make money on a large scale is a special gift, bestowed on few men and hopelessly unattainable by others; and there is some truth in that view. But the more essential factor in Colonel Colt's business success was hard, unremitting, personal work, kept up steadily through the years and even so long after the actual necessity for it was passed that the inability, in his own mind to drop it, or even much to lighten it, no doubt shortened his life.

"In the trying struggles of his earlier business career, it was conspicuously by hard-involved close and minute attention to the details of his growing interests, that he overcame the opposition, merciless competition and often jealous antagonism which he had to meet. In later diversification of his affairs, the widening of them over a more than local field, it was still hard work, even harder work, requiring the division of his busy hours between offices in different cities and putting upon him a severe physical as well as nervous strain, upon which he mainly depended to give body and substance to his large industrial visions.

"For he was preeminently a man of vision, of constantly growing vision. As one by one his visions were realized in achievement, still larger ones were ever rising ahead. One project accomplished was but the basis of plans for a larger project. With him great things done were always kindling his ambition for greater. He saw possibilities where others did not, even in some cases which seemed to others hopeless, and he bent himself to the task of realizing them the more strenuously and the more determinedly, the more difficult the task was. The Industrial Trust Co., the largest bank in Rhode Island, and the United States Rubber Co. one of the largest of national corporations, are but two of the dreams which he made to come to pass by hard and prolonged work. His restless ambition would not leave him content with large things. In any respect or class he wanted the largest possible, and he was willing to work for it.

"Next to hard work, he was aided in all his enterprises and endeavors by the attractiveness of his naturally genial and unfailing courteous manner. His suavity of temper, his studious maintenance of friendly relations, even under provocation to resentment, and the kindly sympathy that begets sympathy and readiness to co-operate and help. 'The Colt Smile,' a phrase often on the lips of those who came in contact with him, connoted much. In the conduct of cold business affairs, not less than in the warmer social relations, he attracted rather than repelled. The men whom he selected always with rare wisdom as associates and assistants gladly, even lovingly, worked with him and for him. When there were men whom he wished to persuade, to conciliate, to organize, whose opposition, perhaps, he needed to overcome, his manner of approaching them and treating them made the day pleasant for them to accept his views. He never irritated those he did business with; if they irritated him, as often they must have done, he kept his unpleasant feelings carefully under the cover of his unfailing smile.

"It was because of this natural friendliness of disposition, this aversion to sharp controversy, this preference for the smooth way of reaching results, the conciliation and compromise, temporary concessions for the sake of future ends, were always his favorite method of adjusting differences. Confronted by any problem in business involving conflicting interests, he began at once to look for opportunities to smooth away difficulties and he was usually able to find or make them. If necessary, he would patiently bide his time until conditions so changed or acerbities so softened that the end he had in mind could be compassed quietly and without a controversy, which, even if won, would have left bitterness behind. It was by this method of peaceful and sometimes subtle negotiations, rather than by the rough mode of hostile assault that he achieved those combinations, consolidations and cooperations in the business world, which are the outstanding evidence of his remarkable success as a constructive financier.

"Colonel Colt's primary natural endowment was that of a business man of the higher type. Nature intended him to employ himself exclusively in commercial and industrial affairs of the larger kind. It was a mistake for him to start in life as a lawyer and public man, it was a mistake for him later in life to think of serving his fellow-citizens in political office. His genius marked him for the definite work of business organization and practical finance and it placed upon him no obligation for other service to the world.

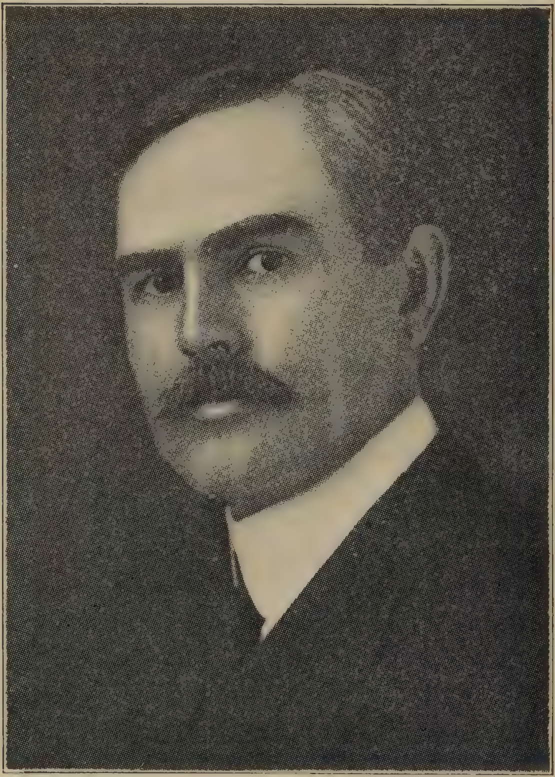
"But his intense Americanism and active public spirit were such that twice in his later life, after he had abandoned politics as a career, he was led to become a candidate for office. These were two unpleasant experiences, though fortunately they did not permanently harm his real beneficient work. He had an aptitude for electioneering, he was unversed in the devious way of practical politics, he was an easy victim of the chicane of professional politicians, he was not at ease in an insincere environment where he could not trust those he must meet and he was grieved beyond measure by the sting of ingratitude. After each unhappy political episode he returned disappointed but bearing no resentments, to the work and service that he knew and loved, perhaps later realizing what others, at least, could see, that his success in politics would have been a misfortune for him and a loss to the world, in that it would have necessarily subtracted something, by reason of diverted hours alone, from the service he could render in the field of business development.

"His exclusion from public life, however, did not prevent him from contributing generously in other ways to the welfare of the community, and this part, too, from the necessary public beneficence, indirect in operation, of his constructive business activities. He added substantially to the public equipment of his home town; he was a constant and liberal subscriber to all good causes in the State, educational, charitable and religious, and during the very last year of his life, when his many labors and responsibilities were beginning to weigh too heavily upon him, he was actively and vitally participating in reorganizing for the broken-down street car service here, not for profit to himself, but because he felt that his means and his special ability offered him an opportunity for public service in this matter which his public duty obligated him to accept.

"And above all else, in the lives of those fortunate ones who were admitted to the intimacy of his personal friendship, only less than those who were bound to him by the ties of blood, his cheerful and kindly companionship in the scanty hours of relaxation was a delectable experience, brightening his circle of private relations and vivifying the social enjoyments in which he took part. That personal service — and surely it is one of the greatest services that any man can render — will be treasured in the memory of Colonel Colt's more intimate friends with a permanency that perhaps cannot be assured for the world's appreciation of his achievements as a great captain of industry.

"Colonel Colt was a virile and inspiring figure in the business and political life of the State and Nation. He possessed a genius for organization and finance, like that which his brother, the former United States Circuit Court Judge, has for the law. He has added lustre to the name of a distinguished family. He was Rhode Island's ablest, most progressive and distinguished citizen. Expressions of regret were heard on all sides when the news of Colonel Colt's death became known in Rhode Island and elsewhere."

The Colonel was a large trader in United States Rubber shares and often joined interests with Anthony N. Brady. The Brady-Colt holdings of rubber were large at times, running around 75,000 shares and the two men were fast friends. Short sellers of United States Rubber on Colonel Colt's death discovered that they had not an easy road to fortune. No corporation, it is true, can afford to lose its biggest unit, but if he is a really big man, the probabilities are that he has built up an organization which can guide the craft tolerably well after he has gone.



JOHN D. RYAN

The story of John D. Ryan is the story of Anaconda Copper. He is chairman of its board of directors and a mighty factor in its activities.

His career was checked for over a year by a serious illness, but he resumed operations with renewed vigor as soon as his health permitted.

He directed Air Craft production during the war. His executive ability and foresight showed that ex-president Wilson had made a wise choice.

JOHN D. RYAN

JOHN D. RYAN, chairman of the board of directors of the Anaconda Copper Mining Co., the president of the Montana Power Co. and a director of aircraft production during the war, was born October 10, 1864, at Hancock, Michigan. His father was the discoverer of what are now the Copper Range Mines of the Lake Superior district. Although the son of a miner, he never did a day's mining in his life. He never knew what it was to sleep in miner's togs at the bottom of the shaft.

His parents wanted him to go to college, but he preferred to earn money. When he was 17 he entered one of a number of general merchandise stores in the copper district of Michigan, owned by his uncle. For eight years the future copper magnate weighed sugar and did such other duties as are required in a country store and his hours were long. From this uncle, who was the leading merchant in that part of the country, he picked up more or less business information, but he had no idea of being a merchant. A brother and a sister having been compelled, because of ill health, to live in Denver, young Ryan at 25 decided to try his luck in that city with them. But fortune did not immediately respond. He was six months in Denver before he found employment to suit him. Finally he got a start as a drummer, selling lubricating oil. He traveled all over the Rocky Mountain section from Montana to Mexico, and new but little of domestic life for several years.

Among the men he met in Butte, Montana, was Marcus Daly, who was then building up the Anaconda organization. He sold him oil and in that way was thrown into intimate contact with him. This later turned out to be a permanent connection for it led to his removal to Montana and ultimately to his becoming directing head of the powerful Daly institution. Things were stormy in Butte at that time. The stormiest petrel of them all was Fritz Augustus Heinze and it became Mr. Ryan's business to placate and eventually to eliminate Heinze.

Later Henry H. Rogers, one of John D. Rockefeller's partners, asked Ryan to take charge of the Amalgamated Copper Co.'s affairs in that state.

This job at that time was about as uninviting as any in the United States. Amalgamated had several fierce political fights on its hands; it was up to the neck in litigation with Heinze and there were miles of underground workings in the Amalgamated and other properties on Butte Hill involved in it. Labor conditions were unsettled and the whole State was in a ferment, politically and otherwise. Practically everybody in Montana was lined up on one side or the other.

This state of affairs existed at the time that Mr. Ryan became managing director of the Amalgamated Copper Co. with entire charge of all its subsidiaries, to complicate matters Henry H. Rogers, head of Amalgamated in 1907, began to lose his health. Accordingly Mr. Ryan was invited to come to New York to assist in looking after this important branch of Mr. Rogers' activities. Rogers died in 1908, Ryan succeeded him as president of Amalgamated. But back in 1904 he had Heinze on his hands. His job was not merely to manage the mine, but to manage men and its political fortunes as well. Shortly after Ryan was in charge, the Heinze faction was defeated and peace was established.

Heinze had been a great popular leader in Butte, and he had yet to meet a man who was his match. He met that man in Mr. Ryan. When peace negotiations were opened Heinze wanted to do business, but was mortally afraid that the miners in Butte would learn that he was preparing to sell out, as he had been loudly promising to fight their battles for them if they would only stand by him. He could not, therefore, afford to show his hand. He would never meet Ryan except in the most out-of-the-way places. They never went into a building by the same door. Heinze never went to Ryan's office and Ryan never went to his office. Some of their most important conferences were held in Providence, R. I., inasmuch as Heinze was at Newport, and Ryan in New York. Heinze was always particularly anxious that they should not run the risk of being seen together in either Newport or New York, hence Providence was selected.

The two men would meet from month to month for discussion. Finally one night they talked price from 9 until 3 o'clock in the morning and reached an agreement. Through the formation of the Butte Coalition Co. means were afforded of buying Heinze out and getting him out of the camp. Amalgamated bought all the Heinze properties in Butte except the Lexington Mines. The Lexington Mines were covered by an outstanding bond issue which could not be delivered by Heinze. This was in 1906. When Heinze left and repaired to New York City his departure was marked by the subsidence of political turmoil, and Ryan was enabled to wash his hands of political campaigning and concentrate his attention upon increased Amalgamated properties.

Then came Ryan's reward in his election as president of the Anaconda Company. He is today chairman of the board of directors. With the elimination of Amalgamated, Anaconda became the biggest copper undertaking in the world. Thus do we see in Mr. Ryan's career the outstanding economic trend of his work. During the stay of Heinze in Butte there had been interminable disputes over encroachments by one company upon the underground ores of another, the mining lands being a patchwork of claims owned by different companies. At one time there were before the courts disputes involving almost $200,000,000.

Ryan by his fairness impressed himself favorably upon the whole community. He brought order out of chaos, brought all the companies under the full control of Amalgamated, later to become Anaconda. He showed no bad spirit nor took revenge upon former antagonists after he had eliminated Heinze and his maganimous course won for him the respect and confidence of all the warring factions. In 1910 all the holdings of Amalgamated and all properties and subsidiaries were merged into Anaconda, and Amalgamated was dissolved.

In August 1907 John D. Ryan was stricken with typhoid fever and was so ill that he learned nothing of what was going on and he did not return to duty until March of the following year. It may be recalled that there was a panic in those days; but Ryan was too sick to know anything about it.

Today, Anaconda, in addition to producing normally

15% of the world's total output of copper, is the largest producer of silver in the world, and its output of high-grade zinc exceeds that of any other mine in the world. It is also a large producer of fertilizer and other products. Its metallurgical processes are admittedly the most advanced known, and to them is due in large measure the phenomenal increase in the company's profits. The company has also made large investments in other mining enterprises and is now heavily interested in properties in various parts of the United States as well as in South America, notably Chile. It is also, through subsidiaries, a great industrial and mercantile enterprise.

Back in 1912 Mr. Ryan was so impressed with the Inspiration Copper Mine, then only comparatively in its beginning, that he invested extensively in it; today it is about the fourth largest producer of copper in the world and in the first twelve months its profits were almost double the total cost of the property and its complete equipment.

Not only is Mr. Ryan chairman of the board of directors of the Anaconda Copper Co. but he is also at the helm of the Montana Power Co. In the space of 10 or 11 years he has developed this company into so efficient and huge a concern that it can supply power to industries and railroads and general business in Montana at rates which give these interests advantage over enterprises located in any other State in the Union. The world has heard a great deal about the electrification of 440 miles of the St. Paul Railroad over the Rocky Mountains, but only railroad and electrical men know the genesis of this wonderful feat.

John D. Ryan was the creator of the enterprise. When he got the Montana Power Co. into working order he decided to electrify the Butte, Anaconda & Pacific Railroad between the mines in Butte and the smelter in Anaconda. This was known as the "busiest railroad on earth." Although it handled only about 100 miles of track, all told, this road carries a tremendous tonnage. As it was a system complete in itself, it lent itself ideally to experimental purposes. When the task of electrifying the road was complete, the experiment proved an unqualified success. Efficiency reached the maximum and the costs were cut to a minimum. Civil engineers and railroad men from all over the world came to study it. The St. Paul Railroad was peculiarly interested because of its almost insurmountable problems in hauling freight up the slopes of the Rockies. Now it has its road supplied with electric current from Mr. Ryan's company. The Montana Power Co. provides the power for the operation of no less than 550 miles of railroad and practically all of the mines in Montana get their power from this project, as well as numerous other industrial enterprizes.

This company has functioned so well that Mr. Ryan appeared in response to a request from a Congressional committee a few years ago. In answer to the inquiry as to whether the company had a monopoly of the power business throughout the State, Mr. Ryan replied that it did. It had 95% of the business in this line in the State. It had a monopoly not only of the water power resources of the State, and of the market, but it had a monopoly because the service it gives is so good and the charges are so low that there is no possibility of competition from any other water power company or any other source. And the investigating committee found out that the consumption of electric energy in Montana is greater per capita than in any other State in the country.

"Hydro-electric development, electrification of railroads, discovery of improved metallurgical processes of one kind and another are destined to make infinitely greater progress than is even dreamed of today," said Mr. Ryan most enthusiastically. This is one subject on which he delights to talk. He sees mining, industry, transportation and civilization in his mind's eye as a whole, not so very many years hence, on a plane higher than business men of today dare to predict.

But here we may digress a little and give some idea of what Mr. Ryan was doing during war times. Early in the war he decided to dedicate every ounce of his ability and virtually every hour of his time to the cause. He first came into public notice by readily agreeing to furnish copper to the Government at about half the price then ruling. But it was his cheerful acceptance of an honorary full-time position of chairman under the late H. P. Davison, of the Red Cross War Council, that proclaimed the depths of his patriotism. This job carried no particular glory. But it offered scope for constructive work of infinite value to soldiers and civilians alike. He made his mark as an organizer and executive of brilliant ability.

Then came the appointment by President Wilson of Mr. Ryan as Director of Aircraft Production for the Army. His choice fell upon Mr. Ryan although Mr. Ryan did not know a thing in the world about aircraft. His choice was happily made. An investigation at that time showed that stupidity rather than criminality was responsible for a tragedy in aircraft bungling. It was learned that Washington officials, including several well-known engineers, had committed gross errors of judgment. For example, aeroplane engines were ordered in large quantity and it was not until months had been spent on their manufacture that it was discovered that they were entirely too large and heavy for the planes.

Manufacturers were constantly harassed and embarrassed with imperative injunctions to make changes in design. These changes necessitated the designing and making of new tools and new equipment. This involved serious delay. There was no one master mind directing and co-ordinating the aircraft program. One individual had certain pet ideals which he proceeded to try to carry out only to find, after much money and time had been spent, that his plan did not fit into the plan of others in authority.

It was into this situation which Mr. Ryan stepped. He knew how to organize and conduct large enterprises. He had executive ability of a high order. He had courage and would insist upon having things done properly no matter whose sensibilities it was necessary to over-ride. Past reputations counted for little with him in such matters.

He brought order out of chaos. He had both motors and planes being turned out in quantity. One concern produced 800 aeroplane motors in one month and increased its output up to 5,000 a month. Mr. Ryan's handling of the matter was a success in every way.

The war over, one of the biggest things in Mr. Ryan's career is the acquisition of the American Brass Co., which he has succeeded in effecting in December, 1921.

The decision of the Anaconda Copper Co. to enter the brass fabricating business on a large scale marked one of the most important and far-reaching developments in the history of the copper and brass industries.

Chairman John D. Ryan, of the Anaconda Copper Co. was for years well aware of the policies which controlled the American Brass Co. If his company were to embark in the fabricating business and the purchase of a strong going concern was deemed advisable, American Brass exactly fitted into his requirements and it so happened that the productive capacity of Anaconda's copper and zinc mines balanced very closely the metal requirements of the American Brass.

In the manufacture of brass, the two primary ingredients are copper and zinc in the proportion of two parts of copper to one part of zinc and while Anaconda is known to the world chiefly as a copper producer, it has within the past few years risen to the front ranks as a producer of electrolytic zinc. In 1902 it produced at Great Falls, Montana, 101,332,000 pounds of this metal.

Anaconda has had a long and creditable history. Under Mr. Ryan it has expanded into profitable lines of industry beyond that of copper mining. It is one of the world's largest silver producers and in 1918 when its output of copper was 293,000,000 pounds its production of silver was 10,967,905 ounces together with 64,318 ounces of gold. Anaconda is also a substantial coal and lumber producer beyond its own immediate requirements.

But Ryan's mind is continually roving in search of new economic schemes. He is now interested in the possibilities of an innovation his experts are developing—a copper shingle. He says of it:

"We are now at work on a plan for marketing Anaconda metal shingles—both copper and zinc. We are interesting manufacturers and getting suggestions as to how best to reach the people who want to put roofs on houses. You may hear of me any day as having been in overalls showing how easily an Anaconda metal roof can be built. I have made the statement to so many people that I could put one on myself that some day I may have to prove it.

"It will probably be some months before we will be in a position to take orders, as the product we have made up to date has been mostly by hand work and we now have manufacturers of automatic machines designing something that will turn out a lot of shingles with a minimum of labor.

"Great interest has been shown in the shingles by manufacturers and distributors of copper products. The very best of them have expressed the opinion that it is a very important step in the use of metal for roofing, and their greatest interest seemed to be in trying to secure the exclusive rights to make and sell it, which we are not likely to give to anybody."

Ryan is today one of the biggest men in the nation. There was a time when he was not known out side of Butte. This recalls one of his connections which is passed over in this narrative. This is the Cole-Ryan Syndicate. Back when he was in Butte he formed a connection with Thomas F. Cole, of whom little was known, except that he lived in Duluth and had made a conspicuous success by developing in the Calumet & Arizona the limestone deposits of the Bisbee, Arizona, district. This syndicate in time controlled Butte Coalition, which ended the Heinze War, North Butte, Calumet & Arizona, Greene-Cananea and Superior & Pittsburg. It was also gradually extending its operations to include the Chimung, Keeweenaw and Ojibway mines in the Lake district. It commanded attention when it went into Ely district and bought the Giroux Consolidated, a property which was little known at that time, but which had developed high-grade ore in the limestone.

About this time an announcement was made which focused the attention of the whole copper world on John D. Ryan. It was that the International Smelting & Refining Co. had been organized, financed and had purchased the Raritan Refinery from the United Metals Selling Co., thereby securing the chief copper refinery of the world; and that it would immediately undertake to construct an enormous smelter at Todele, Utah. In this connection Mr. Ryan used his diplomacy to form a coalition between the Amalgamated and Lewisohn interests and cemented in secure bonds of mutual interest the biggest producers and biggest marketers of copper metal. He thus started a campaign of smelter construction which promised to enable the Amalgamated Co. to cope with the Guggenheims, who, up to that moment, had enjoyed a practical monopoly of the smelting and ore purchasing business in the country. This transaction was carried out with the quiet, but effective, methods which were characteristic of John D. Ryan.

One of the proudest moments of Ryan's life was when the United States Government early in 1917 sought many millions of pounds of copper for military purposes. He was the first man approached. His attitude was so promptly patriotic that the Government had but to interview one other man, Daniel Guggenheim, before receiving assurances that the War Department would be supplied with copper at less than half the price then current. "Those two men deserve all the credit," was the tribute the Government's representative paid them. And they were worthy of it.

When he was 32 years of age Mr. Ryan married Miss Nettie Gardiner, of his native town of Hancock, Michigan.

JAMES BUCHANAN DUKE

James Buchanan Duke, whose name became famous through his activities in the tobacco world, was one of the mightiest factors in the development of the South.

His tobacco became popular among the Union Army during the Civil War—and upon this popularity he built up a business capitalized in the millions.

He is the father of the American Tobacco Company—and may truly be classed as a financial giant.

JAMES B. DUKE

JAMES BUCHANAN DUKE, known the world over as the Tobacco King, was born in the first year of the Civil War, in 1861. He was named after James Buchanan, the last of the ante-bellum Democrats to be President of the United States. His father was Washington Duke—"old man Wash" Duke, of Durham, North Carolina—the founder of the great tobacco firm. He had three sons, Brodie, James Buchanan and Benjamin.

Washington Duke a kindly old Southerner started the tobacco growing business in a small way and his son James Buchanan, born also in Durham, North Carolina, started early with him. They had no plant aside from a 30x60 ft. barn and the house owned by Washington Duke. Business was good for the Dukes from the start.

After the war had been in progress a year or more, Washington Duke joined the Confederate Army, selling out everything he had for Confederate money with the exception of some things which were to be paid for in tobacco, settlement to be made at the end of the war. The children were sent to their grandfather, who lived thirty miles from Durham. When Duke returned from the war in the spring of 1865, the purchaser of the farm was unable to make payment. He was in possession, ran the farm and occupied the dwelling house. There was nothing for Duke to do but to become temporarily a farm laborer for the other man, getting, in return a portion of the crop.

Out of this situation was born Duke's tobacco business. James Buchanan Duke, with his two brothers—his mother was dead—lived with his father throughout the winter in a log cabin on the farm. He slept on a straw tick in a corner of the barn. His sister was given a bed at the farmhouse.

Washington Duke had plunged heavily on the Confederacy. He had in fact risked his whole estate on the lost cause.

He returned at the close of the war to find the tobacco he had raised on the farm had been looted. From the ashes of defeat he had to restore his fallen fortunes. He had made a reputation already in the tobacco manufacturing business and moreover he had with him three masterful sons, and the story of the American Tobacco Co. is that of a business originally set to financial music by the Duke family. These were thoroughly American Dukes, originally bred from the Scotch—a hard-headed Southern-American breed.

In the same sense that personality makes a business, so, too, does a business make personality and there is no better example than the American Tobacco Co. and the Duke boys. Washington Duke was said to be especially proud of his given name. He had always said that some day before he closed his eyes—and they have been closed for some time now—he would be to the tobacco industry what Washington was to the country—the head and feet and body of the business, and "Father of the Tobacco Industry."

The fact that the old man's name was Washington Duke and that James Buchanan, too, was named after a President, is considered significant. The personal element in the days when the Dukes first flourished ran very high, and Buchanan was a much liked man in many parts of the South. And they never forgot that Durham was the scene of the start of their business, with the result that no brand is more widely known among smokers than is "Bull Durham."

All that Washington Duke had with which to begin life again was a 50-cent piece for which he had exchanged a $500 Confederate note on his return home. But he had acquired a reputation, for the Northern soldiers who had looted his tobacco and had smoked it up, wanted more and so wrote to the postmaster at Durham for additional supplies of the same delicious quality they had found on the farm close by.

The farmers had begun to grow tobacco again and those who had owed Duke money before the war, paid him in that commodity. He began to sell it together with what he was able to grow himself. His sons helped both on the farm and at peddling as they became old enough. The Dukes later on bought up the tobacco crops of other farmers and made arrangements to ship it to South Carolina, Alabama and other points. The business by 1871 had grown from 40,000 to 50,000 pounds a year.

In 1871 they had bought an old two-story building as a warehouse and residence combined in Durham. They had a small factory there by 1874. When work on the farm was slack during the fall of each year young James B. Duke attended a free school, but business appealed to him far more than book learning. He was fourteen when he showed extraordinary aptitude for handling and peddling tobacco, and by the time the factory was being operated in Durham he was installed as superintendent. Washington Duke was worth $10,000 to $15,000 by the time his son was eighteen and he wanted him to go to college. But this did not suit young Duke. He wanted a partnership in the business instead. The father replied that he would give him $1,000 and let him go off on his own account for a while, which the lad was promptly prepared to do. But the father was loath to part with him and so finally agreed to give him and another brother each one-sixth interest in the business. The partnership was a success. "Duke of Durham" tobacco was finding a big market.

There came a consolidation then in 1878. George W. Watts, of Baltimore, was taken into co-partnership with the Dukes. The five partners were W. Duke (the father), Brodie L. Duke, George W. Watts, James B. Duke and B. N. Duke. Brodie L. Duke was the oldest brother and by this time had established quite an extensive tobacco business of his own at Durham. W. Duke, Sons & Co. was capitalized for $70,000. Of this amount James B. had saved $3,000 and his father loaned him $11,000 to make up the $14,000 which each partner contributed. With the new money, the business grew rapidly, so much so that when the American Tobacco Co. was formed a few years later the Duke plant went into the consolidation at a valuation of $7,500,000. The price was enormous yet the fact is that those who examined the business that had been developed by the Dukes admitted freely that it was not unreasonable.

The growing of tobacco had been given up with the formation of W. Duke, Sons & Co. and all its energies were centered upon the manufacturing and selling of tobacco bought from other farmers. The field covered was granulated smoking tobacco. But the younger partners, full of ambition, were anxious to break into new ground.

James B. Duke was the business getter of the new organization. He was known as "Buck;" he was a typical tobacco drummer of those days. He would jam his grip so full of samples as to leave scarcely any room for clothes and he would rush about the country impatient of every delay of trains or other obstacles, placing "Duke of Durham" tobacco, as it was called, in the stores countrywide. There was no saying "No" to him.

The young man's energy astonished his father and brothers and the success which attended his efforts was a revelation to them. They saw him working day and night on the road, taking very little sleep, sending in orders in increasing volume for "Duke of Durham." With his success on the road there came a shrewd realization of the value of their commodity. "Buck" Duke was a strong trader and organizer and a good judge of advertising values. He said upon one occasion: "I have spent more money in advertising than any other living man. I have given out $50,000,000 to make my goods known."

When Washington Duke retired from business, the firm became Duke Brothers. It had become one of the most important industries in North Carolina, covering 10 acres of ground and to James B. Duke's extraordinary energy, ambition and business acumen this was due. The firm was making money and no matter how much profit it made he insisted upon nearly all of it being put back into the business.

The familiar paper-covered cigarette began to be manufactured in 1881. James B. Duke came to New York around 1884 to see if he could not solve some problems in connection with their production and sale. Inasmuch as cigarettes were hand-made at that time and their cost stood in the way of profitable marketing Mr. Duke put inventors to work, and a somewhat crude machine was made. It was, however, a beginning. Its work was at first imperfect. Bankruptcy was predicted, but he gave the machine to an expert who finally succeeded in making one that would make thousands of perfect cigarettes a day. He had all other manufacturers of cigarettes beaten, and there was soon a rush for similar machines.

By this time the firm had invaded New York with a factory for the manufacture of both cigarette and pipe tobacco. The Dukes had become the largest advertisers in the United States, their annual bill reaching as high as $800,000. From the start the new move proved successful beyond their fondest dreams, more business being offered them than they had capital to handle. It was at this stage that Mr. Duke lived in his hall bedroom, ate regularly in a Bowery lunch room near the factory and turned back into the business $49,000 of the $50,000 a year he was making. He would not tolerate any other partner, married or single, drawing more than $1,000 a year.

To facilitate credit and other operations the firm was incorporated in 1885. Its output of cigarettes quickly amounted to a billion a year, equal to 40% of the total cigarette business in the country, notwithstanding that others had had a long start on them. "Buck" Duke could see a wonderful future for his business. It was still in its infancy and he saw the time when Duke's tobacco and cigarettes would be on sale the world over.

Next we find Mr. Duke invading England with his cigarettes, spending money lavishly in advertising. He had spotted another opportunity in the foreign field and he adopted various sensational methods. His most formidable rival in England offered to divide among retailers offering its own tobacco for sale a bonus of $200,000 every six months. The Duke English branch was known as "Ogdens, Ltd.," and it immediately announced that it would divide the entire profits every six months, plus $500,000, among the retailers and that this would continue for four years. The British tobacco men saw nothing for it but to buy out the intruder, and this they did at a price that made people gasp. The public had been benefiting greatly by the cigarette war, getting their smokes at an absurdly low price. And, needless to say, Duke's "Cameos" in their dainty little decorated cardboard boxes were all the rage. This stiff cardboard box furnished another marketing opportunity, the value of which was instantly appreciated by Mr. Duke. He ordered 50,000 boxes and within a few months was buying them in million lots. Previously these cigarettes had been wrapped loosely in packages, and were easily crumpled and broken in the pocket.

Then came to Mr. Duke the idea of taking over the principal tobacco concerns in the United States, forming one huge company, floating stock and obtaining adequate capital, and, incidentally, pave the way for an invasion of Europe.

Duke, lived ten years before he realized it. In 1890, he formed the American Tobacco Co., which included four of the principal tobacco concerns in the country in addition to his own.

Prior to 1890 the so-called industrial trust movement in this country was barely under way. The only industrial combinations of large capital, the stocks and bonds of which were widely scattered in the hands of the public and traded in in the financial market, were the American Sugar Refining Co., the Cordage Trust, the Whiskey Trust and one or two others. But after 1890 the industrial enterprises of large size in this country began to consolidate and soon the so-called industrial speculative field came prominently into evidence and began to make up substantial proportions of the trading securities in the Street.

The most conspicuous example of this trust-forming tendency was this great consolidation in 1890—the common corporation formed under New Jersey laws known as the American Tobacco Co. and into this consolidation of tobacco companies Duke's firm received $7,500,000 for its interests. It earned 20% on its purchase price however in the very first year and James B. Duke, once a bare-legged nine year old boy who tended tobacco plants on his father's farm, was chosen to be the president of the American Tobacco Co., with its many millions of capital.

By this continued series of consolidations and frequent reorganization, a monopoly was created and the company became known as the "Tobacco Trust." Then followed a continual clamor against the evils of monopoly in general and against the American Tobacco Co. in particular, with the result that suit was instituted against the American Tobacco Co. on grounds that it was a monopoly in restraint of trade under Anti-Sherman Trust Law. And in May, 1911, the United States Supreme Court granted a decision declaring that the American Tobacco Co. was a monopoly in restraint of trade and ordering the dissolution and disintegration of the company into 14 separate parts and independent companies. The plans of disentegration were prepared and approved by the Supreme Court and a Protective Committee, and after the dissolution another American Tobacco Co. emerged.

James Buchanan Duke has severed all official connections with the American tobacco companies, although he remains a large stockholder in numbers of them. He remains at the head of the British-American Co. He has conceived a gigantic project in the industrial development of his native State and its sister State, South Carolina and has organized the Southern Power Co. to supply electric power for cotton mills and other plants, including street railways, lighting plants and other activities demanding electric current.

This company is already serving 75 towns and over 100 cotton mills operating more than 3,500,000 spindles, while it also runs an electric railroad of 125 miles. Due to this power furnished at reasonable cost, the Southern cotton mills have passed those of New England in annual output.

His estate at Summerville, New Jersey, has 1,000 acres of lawns and is one of the showplaces in the State. In addition he has a fine residence on Fifth Avenue, New York City.

CHARLES M. SCHWAB

"Charlie" Schwab, known as "the greatest salesman in the United States," first president of the United States Steel Corporation, is a glutton for work. Andrew Carnegie said he is a genius in the management of men and machinery. Like other of the Giants, he started with nothing.

His success has been based on hard work and that ability so aptly described by Mr. Kipling to "walk with kings, nor lose the common touch."

CHARLES M. SCHWAB

"THE man who has done his best has done everything. The man who has done less than his best has done nothing. Nothing is more fatal to success than taking one's job as a matter of course. If more persons would get so enthused over their day's work that someone would have to remind them to go out to lunch, there would be more happiness in the world and less indigestion. If you must be a glutton, be a glutton for work."

These are the words of Charles M. Schwab, who has been for more than twenty years the real head of the steel industry. Mr. Schwab is known as the greatest salesman in the United States. Perhaps no man in the United States has a more winning personality than Mr. Schwab.

"Whenever I talk with Charlie Schwab for five minutes, I have an irresistible impulse to grab my hat, rush out and do something," said a friend of the Steel Master once upon a time. "His enthusiasm electrifies one."

Ever since 1900, when Mr. Schwab acted as salesman and go-between for Andrew Carnegie and J. P. Morgan in the sale of the Carnegie Steel Co. to the then new United States Steel Corporation, he has been "putting over" big sales. This was the biggest sale ever made in the history of the world and it was Mr. Schwab who made it. That sale netted Mr. Carnegie and his "partners" $320,000,000. They took payment in 5% first mortgage bonds of the United States Steel Corporation, netting them $16,000,000 annually. Mr. Schwab before a Congressional committee explained the fundamental idea of the combination when he was asked to tell how he worked it with Mr. Morgan.

"I explained at that meeting (meaning the famous steel dinner in December, 1900) the very great advantage that would result in manufacture through such an organization as the United States Steel Corporation, and I gave my reasons in detail to them. First of all, that instead of manufacturing steel as it was then manufactured by a number of companies, each of whom manufactured the same lines, it was my idea that the organization to be truly successful should be made of such a character that one mill should be run on one product and not one mill on fifty products, as was then in practice."

Mr. Morgan listened to Schwab's agrument and was "sold" on the idea. He consented to form the company, which was done by amalgamation of various steel companies, forming the greatest aggregation of capital ever put forth. When he had formed it, he asked Mr. Schwab to become the head of it. He wanted to pay Schwab a million dollars a year as president of the combination.

"I don't want to work for a salary," said Schwab. "You expect the company under my management to make $70,000,000 this year, I believe."

"That is right," said Morgan.

"Good! Instead of paying me a salary will you give me 2% of all we earn over $70,000,000?"

"You bet I will," said Morgan.

And Schwab made more than his million.

He retired from the presidency of the "Steel Trust" three years later, in 1903, to take over his Bethlehem plant. Schwab held about 75,000 shares of United States Steel Corporation preferred, 75,000 shares of common and nearly $15,000,000 worth of 5% bonds. His holdings in this company alone were worth more than $30,000,000.

Charles M. Schwab was born in Williamsburg, Pennsylvania, February, 1862. When he was ten years old his father moved to Loretta and bought out the little mountain hamlet's only livery stable, from which he ran a mail stage to Cresson. The people of Loretta loved to recall the sight of "Smiling Charlie" Schwab, as he was generally known, driving the stage horses along the narrow mountain roads.

"He always had a book with him," they said, "which he studied while the horses were getting their wind."

Young Schwab went first to work in a grocery store in Braddock, Pennsylvania. He was then eighteen years old. He started in at $10 a month. His father gave him a five dollar bill as working capital. Schwab took hold of this job with characteristic energy. He slept in the store. He got up 6:30 A. M. and swept out and worked until 10:30 or 11 o'clock in the evening.

Much of the store's patronage came from the workmen at the plant of the Thomson Steel Co., where old Captain Bill Jones was in charge. One evening Schwab caught the eye of Captain Jones. who was one of the greatest steel makers this country has ever produced.

"Do you want to change your job young fellow?" asked Jones.

"Yes, sir!" responded Schwab.

"What are you willing to do?"

"Anything," replied the smiling young clerk.

"Well," said Jones, "come around tomorrow morning and I will give you a dollar a day to hammer stakes."

This was the beginning of a friendship that lasted until the tragic death of Captain Jones. Schwab at once showed a natural talent for mechanics, and from Jones, who was without a peer as a leader of workmen, he learned to manage men.

Mr. Schwab's power of leadership has stood the supreme test in the sequel to the great Homestead strike, one of the bitterest of labor wars. The strikers had lost out. On the shoulders of Schwab was placed the job of constructing a new Homestead out of a sullen, beaten mob of five thousand workmen and machinery deteriorated from disuse. In six months he had turned the trick. By his contagious enthusiasm, his man-to-man comradeship, his knowledge of the problems of every employe, he built up the finest steel mill in America, manned by workers who cheered his coming and smiled after his going, and honored him at all times with the best their brains and hands could produce.

When Schwab went down to Homestead to say "Good-bye" after resigning as president of the Carnegie Steel Co., five thousand men turned out in a body to wish him good luck.

"Schwab is a genius in the management of men and machinery," said Carnegie, "Never saw a man who could grasp a new idea so quickly."

Schwab's achievement in handling the Homestead Steel Works after the great strike was one of his greatest. No steelmaker, before or since, has ever had to tackle a harder job. When Schwab took Homestead it was a failure. It was a $4,000,000 mistake. The machinery was not working properly and the men were not working at all. There was a stupid rabble of strike-breakers and a sullen, defeated army of five thousand workmen to deal with. The whole place had been for five months a battlefield, the Waterloo of organized labor.

It was into this inferno of hate and bitterness that Charles M. Schwab was thrust. Nothing daunted him. He swept into the Golden Sea with all sails set and the band playing. He reconstructed the Homestead works from the debris of the great strike. He created the profitable armor-plate department. He originated the Saturday meeting of the superintendents. He accepted any responsibility that was offered him. Little by little his "Hurrah boys!" sprung the great steel mill into action. He was always approachable and sympathetic, yet always as quick as lightning to turn everything to his own advantage. Always fluent and plausible, he was never at a loss for a reason or an inducement. In six months the surly workmen were entirely won over by his invincible optimism and perserverance. "Charlie is my darling," was heard in Homestead, instead of the curses and rifle-shots of a few months before.

When Carnegie saw that Schwab had made good at Homestead, he made him president of the whole company, so that even the masterful Frick was not equal to him in authority. This was the first time, perhaps, in which so young a man, absolutely without any business experience, was placed in command, over so great a corporation.

There was another young workman in the Carnegie company who followed Schwab like a shadow. He was four years younger, and his name was William Ellis Corey. He was a descendant of Benijah Corey who flourished a hundred years ago and owned a farm of three hundred acres whose site is now covered by the streets of New York.

These boys had been friends in "Smoky" Braddock, when one was in a grocery store and the other was working on a coal tipple. Both got dollar-a-day jobs from the Carnegie company and worked up to be superintendents at twenty-one. Both married in Braddock, both became armor-plate specialists. Both made reputations as "drivers" and record-breakers." Both moved up from one presidency to another, Schwab being always the one who moved ahead.

But there was this difference between them. To Schwab a workman was "Bill" or "Joe" or "Tom." To Corey he was "No. 135."

Schwab swayed his men by sentiment, by his contagious enthusiasm, and by his personal knowledge of each man. Corey ruled by his tireless supervision and his thorough knowledge of every department.

Schwab was brilliant, dramatic, impulsive. Corey was painstaking, methodical, trustworthy. Schwab loves men. Publicity stimulates him like wine. Corey has always been reserved, stern-faced, non-magnetic.

The policy of making generals out of inexperienced private soldiers was distinctly that of Andrew Carnegie. This was regarded as revolutionary and dangerous in the highest degree by other Pittsburgh employers. It was a radical wiping out of all the old-fashioned ideas of apprenticeship. Smooth-faced boys were put in command over gray-haired veterans. Enthusiasm received the honors that had invariably gone to experience. The older men commented bitterly on this policy, and said that Carnegie was turning the industrial world upside down. But Carnegie, often 4,000 miles away, continued to put his army of 20,000 workmen in charge of this drummer-boy. Whether this was correct or not theoretically, it actually worked better than any other plan of leadership that has ever been tried in the iron and steel business.

And the most brilliant of all the young partners was Charles M. Schwab. His was the most meteoric career ever known in the steel business. He had risen step by step — but such steps!

Step No. 1 — driving stakes for a dollar a day at the Edgar Thomson Works.

Step No. 2 — six months later — superintendent of the

Edgar Thomson Works, the foremost steel-making plant in the world.

Step No. 3 — at 30 years of age superintendent of both the Edgar Thomson and Homestead plans, managing 8,000 workmen. This was the only instance in which Carnegie permitted one man to operate two plants.

Step No. 4 — president of the Carnegie Steel Co., with an immense salary and 3% of the stock.

Step No. 5 — president of the new United States Steel Corporation, with $28,000,000 worth (par value) of its stock and a record-breaking salary. At thirty-nine years of age, in 1901, he sat on the apex of the towering steel pyramid, the victor among 200,000 competitors.

The former president of the Pittsburgh Stock Exchange said when he first saw him it was as a bare-footed boy in Loretta, a mountain hamlet near Altoona. The next time he saw him he was in his $100,000 private car.

Step No. 6 — the buying of the Bethlehem Steel Works, in order to have a company all of his own. To hold him as president, Mr. Morgan took the company off his hands at the price he had paid for it — $15,000,000. Finally from overwork Mr. Schwab's health broke down and he went to Europe. On his return he insisted that his resignation be accepted forthwith. Thereupon Morgan sold Bethlehem back to him, and Schwab sold it for the same price to the United States Shipbuilding Corporation in the organization of which he was actively interested. It was thrown back on his hands by the wreck of the shipbuilding corporation. He seized it, and lifted it to its present position of world eminence.

Beginning with 1908, when he undertook a long personal reorganization of Bethlehem, Mr. Schwab punched the time-clock every day for three years. At seven or seven-thirty A. M. he was at the works and was boss until eight in the evening. Sometimes he slept in his private car; at other times in the first place where he could find a bed.

Democracy with him was a passion. He loved the plain people. "I want no prouder epithet," he declared at Homestead, than to have it said, "He was loved and honored by the men with whom he worked."

He always insisted that his men work "with" him not "for" him. He liked to be known as "Old Man" and his Bethlehem managers begin their letters, "Dear C. M." or "Dear old man." On Christmas Day about 150 of his "Boys" received presents from him and many of them he called up on the telephone to express his appreciation of their faithful service of the year.

Mr. Schwab saw to it that not a man in power in the Bethlehem Steel Corporation was employed there who did not begin at the bottom and work his way up, round-by-round, simply by using his head and his hands a little more freely and a little more effectively than the men beside him. The president of the Company, Eugene Grace, worked down in the yard when Mr. Schwab first knew him. The Bethlehem Steel Corporation is handled by fifteen "partners" after the Carnegie style of Mr. Schwab. And in this connection it should be stated that the canny Scot never gave a free hand to any man but Schwab to pick out all the Carnegie partners.

When he took over the Bethlehem Works, Mr. Schwab started to train up his managers as Mr. Carnegie had trained his "Boys." So he watched the men who were already there, and picked out a dozen. This selection took months. He set out to build an organization in which all should be bound together in harmony and kindly co-operation. He encouraged his managers to study iron and steel, markets and men. He gave them all small salaries, but instituted the system whereby each man would share directly in the profits for which he himself was responsible. Not a single one of these men disappointed him. They are all wealthy men today, directors of the company and some are directors of the corporation.

Bethlehem Steel common was one of the spectacular examples of the "war babies" in 1915. Stock rose from $25 before the war to $600 in that year, making many Schwab followers millionaires and eclipsing many other stocks. It was said that early in the war Schwab was offered $53,000,000 for his holdings, which were said to be around 90,000 preferred and 60,000 common shares. At the same time he was offered, it is said, the choice of remaining at the head of the company for ten years. But he put away the offer without so much as considering it. His ambition was rather to build up such an organization as he foresaw at that dinner in 1900, when he painted for Mr. Morgan and associates a picture of the corporation that would contribute to raising the United States to first place among the great nations of the earth. In this effort he had laid his vision before the greatest financiers and business men in America, picturing with the eyes of a prophet the glorious possibilities of the new steel era. In his forecast he captivated Mr. Morgan, and added undying laurels to his own reputation as a salesman.

Then after two years he took up the up-building of the bankrupt Bethlehem Works, for it was bankrupt when Schwab took hold of it the last time. He had bought control once before, when he was with the Steel Corporation, from whom he took it back when that enterprise collapsed.

He backed Bethlehem with every dollar he had and could borrow. He took hold of an invention for making structural steel after every important company in the country had turned it down and, because, he was convinced he was right, spent $15,000,000 for the proving of the invention. In this way his company gained the leadership in the structural steel business in the United States and in the world.

The last ten years of Mr. Schwab's life have been very busy ones. He worked at the plant early and late encouraging and enthusing his men. He solved the most scientific cost-ascertaining and profit-sharing plan ever adopted by any great enterprise. He made many trips across the Atlantic and the Pacific. He booked bigger orders than any other man ever aspired to secure. He went straight to Lord Kitchener when the war began, made a friend of him and secured from him enough business to boom Bethlehem as it had never boomed before. He spent over $100,000,000 in strengthening and expanding the plant and in acquiring subsidiaries. In 1916, expenditures totaling $100,000,000 were sanctioned to cover the ensuing two years.

The corporation employs 75,000 men in all. Its annual payroll is approximately $7,000,000 a month. It is a greater producer of engines of war than the Krupp plant in Germany. It is now next in size to the United States Steel Corporation.

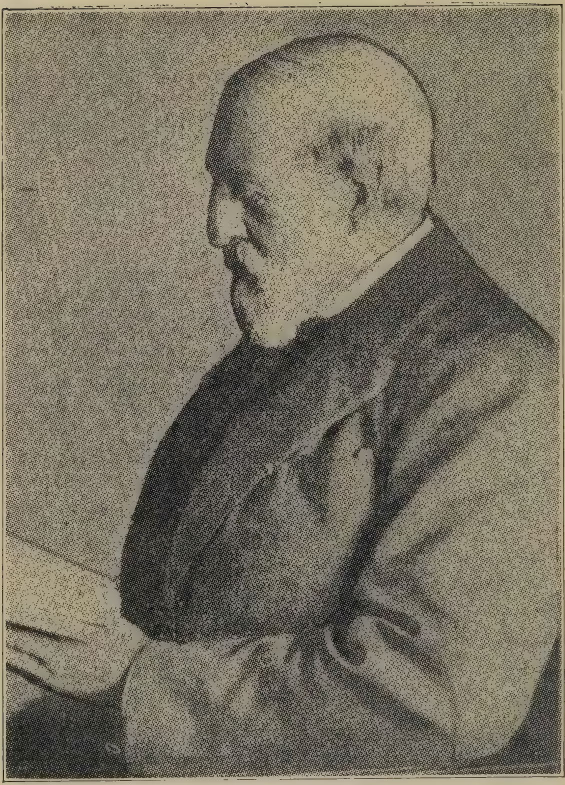
Its shipbuilding companies on both coasts give it 40% of America's total shipbuilding facilities. It secured war orders from the Allies, which are unofficially computed at $500,000,000. It put $20,000,000 into the plant entirely for the use of the Government.

Mr. Schwab ranks with Secretary Hoover as the public man who volunteered to serve the American Government. In that service he devoted every man and every material resource which his corporation could control. However, there was probably no man in this broad land of ours upon whom the Government leaned more heavily than upon Mr. Schwab.

When he took seriously ten years ago the nursing back to health of the bankrupt Bethlehem Steel Works, he closed up his palatial home on Riverside Drive. From there he migrated with his wife to the obscure Pennsylvania village, where the works were located, took off his coat and worked day and night, often against financial and other discouragements.

His New York house is one of the show places of the city. It is a grey-white French Chateau. It stands high above the Hudson on Riverside Drive. On the lawn overlooking the drive are set two bronze figures of heroic size, the works of a celebrated French sculptor. "Labor" is represented by a puddler in an iron mill. "Metallurgical Science" is a figure of a woman with upturned face and a laurel wreath above her brow. This way the sculptor symbolizes his conception of the Steel King's upward journey.

Mrs. Schwab and he spent nearly $2,000,000 on the home of Orphaned and Crippled children on Staten Island. This home has capacity for taking care of a thousand children a day, giving them the run of the bathing pavillion and 60 acres of land. Among his other gifts are an auditorium to the Pennsylvania State College; an Alumnae Hall to Mt. Aloysius Crescent, Pennsylvania, and an Industrial School to Homestead; a Catholic Church School to Loretta, another church to Braddock; a school to Weatherly, Pennsylvania, Mrs. Schwab's birthplace, and a new highway between Loretta and Crescent to replace the road over which young Schwab drove as a barefooted boy.



QUINCY A. SHAW

To Quincy A. Shaw may be attributed a great part of the making of Calumet & Hecla.

With Alexander Agassiz he piloted the big copper producer of Lake Superior to a position among the world's great mines—a feat that entitles him to an enduring place in the development of the mineral resources of America.

QUINCY ADAMS SHAW

QUINCY ADAMS SHAW, the elder, was born in Boston in 1822. He was a fine old gentleman of the old school of Bostonians. Rather early in life, he married the daughter of Professor Louis Agassiz, who many years ago was prospecting for copper in upper Michigan and found it to the eternal gratification of his descendants. Shaw long bore the distinction of paying the largest amount in taxes to the city of Boston. He controlled some 4,500 shares of Calumet & Hecla stock and could exert much influence over the 6,000 shares belonging to the Agassiz estate.

It is said that when the stock of the Calumet & Hecla was selling around $1 a share, Quincy A. Shaw was picking up all that he could buy, so that in due course he became one of its heaviest holders. Wealth then began to flow in an unending stream into the Shaw coffers. Year after year the stock kept rising in price; year after year the rate of dividends kept increasing, until the amount paid to Shaw alone was well over half a million dollars a year.

Quincy Adams Shaw graduated from Harvard in 1845. Out of college he quickly developed his business instincts in the line of promoting, and showed that he was a man who not only had ideas of his own but that he had energy enough to put them into practice.

In November, 1859, he married Miss Pauline Agassiz, whose sister, Ida, married Major Henry Lee Higginson. The Agassiz household continued to be for many a year the center of a truly cosmopolitan culture, musical, artistic and literary, as well as scientific. With his brother-in-law, Alexander Agassiz, he secured control of the Calumet and Hecla mines in Michigan and after a while saw results beyond his most sanguine expectations. In fact, he saw them, "beyond the wildest dreams of copper men." He made his success against heavy odds for this company, has paid to date more than

$150,000,000 in dividends. There are people living around Boston who remember quite well when the stock sold at merely nominal figures. One dollar a share, and even down to 60 cents a share, have been named as prices at which shares have changed hands. In 1907, Major Henry L. Higginson bought a few shares as high as $1,000.

The three counties, Houghton, Keweenaw and Ontonagon, constituting the copper belt of Michigan, have added more to the wealth of the world than any other equal area, except perhaps the Comstock Lode of Nevada, and the anthracite coal belt of Pennsylvania, the Guanajuato silver district in central Mexico and the rich Witwatersrand of South Africa. The latter slightly resembles the Lake Superior copper district in that its gold values are carried in a conglomerate reef like the copper of the Calumet & Hecla mine, with about the same width in somewhat flatter bits along which mines have been opened up for about thirty miles. Butte, Montana, has produced a corresponding amount of copper, with a considerable by-product of silver and gold. The Black country of England has produced a billion dollars worth of gold and iron stone, and the total amount of Guanajuato has been about $700,000,000 to date.

The total contribution of the copper belt of Michigan to the world's wealth probably exceeds $700,000,000. A little mining was done there in the 40's, but the district was not developed until after the Civil War, and has been growing steadily or almost steadily within the last 60 years. It takes from five to ten years to open a new mining district and it costs as much to prospect a property there as to develop one in most mining fields, hence temporary fluctuations do not figure in its operations seriously, either in prospecting or in development.

The great mines of the district, the Calumet and Hecla, began in 1866 as two distinct properties. They had arrived at the dividend-paying stage when they were combined with three other small adjacent properties. These were discovered by E. J. Hurlbert, who died a few years ago in Rome, Italy. In the slang of the Street, Mr. Hurlbert "bit off more than he could chew," as many a prospector has done before and since.

He had a good thing, but couldn't handle it. He hypothecated his stock and let it drop out of his hands. He was an able mining engineer, but a poor business man. While prospecting he found on the Keeweenaw peninsula a boulder of conglomerate unlike anything in the way of copper-bearing rock that had ever before been seen in that country, and he uncovered the bed upon which these mines were opened. He quietly purchased three or four sections of land from the company which had received a grant from the State to assist it in building the Soo Canal. That corporation is still in existence and is known as the St. Mary's Mineral Land Co. Hurlbert obtained financial assistance from Boston people, headed by Shaw, to organize one company after another to develop the discoveries.

But Mr. Hurlbert couldn't swing the financing. He had to keep borrowing more money and when the slump came along he was wiped out and there was no reorganization. In 1871 the Hecla, Red Jacket, Scott and Portland mines were merged. The three last companies had valuable lands with the underlay of the conglomerate.

The Comstock Lode, was, following the gold rush to Sutter's Creek, California, the great upbuilding factor of the Pacific Coast. It made Nevada the "Battle-born State." It financed the resumption of specie payments in the Civil War when Government bonds were going begging. It drew like a magnet the transcontinental railroads across desert and mountains from the West to the East. It raised the most picturesque set of millionaires that ever disported itself in this country, not even excepting the vintage of plutocrats which Carnegie's bounty at Pittsburgh produced — MacKay, Flood, Thayer, Hearst, Mills, Tevis, Daly, and as many more. It supplied the hard money for laying the cable to Europe. Its effect was far-reaching. And it is felt today in Wall and Broad Streets, where on all sides we see evidences of its enormous largess.

Calumet & Hecla easily ranks with the Comstock Lode and is no creation of a poet's dream — no coinage of the brain of an idealist or rhapsodist ever fashioned a greater romance than that of this grand old company, whose high lights and shadows are still thrown powerfully upon the copper mining industry in all of its phases. No romance — no myth — no dream can surpass the rosy and iridescent imagery of the actual history of Calumet & Hecla as told even in the coldest language of statistics and tabulation.

The Comstock Lode created a Pacific Coast dynasty; Calumet & Hecla created a dynasty in the East, in which Michigan, Massachusetts and New York figure. Roland-for-Oliver like Calumet matches the Hearst of Comstock with the Higginson of Boston, Boston's grand old man, its first citizen, peer and contemporary of John Pierpont Morgan. The Mackays and Floods of the Comstock Lode have their counterpart in the families of Shaw and Agassiz of the Hub.

Calumet & Hecla is more than a mine — more than a corporation. It is an institution — a dynasty — an aristocracy — a regime. Calumet & Hecla stock is a seasoned stock. Mr. Carnegie was once asked on the witness stand why he made the par value — $1,000 — of the Carnegie Steel Co. so high, and he answered: "Because I wanted it kept out of the stock market and away from speculation. I made its par value high for this reason."

Calumet & Hecla has never been an active stock on the Boston Stock Exchange because its value there is too high. Its par value is low enough—only $25, like that of nearly all the other Michigan mining companies—and only $12 of this has ever been paid in, but the stock has sold up to $1,000 a share. Its market value is too high for it to be a mobile issue on the stock market. It takes too much money to move it and consequently it remains inactive, notwithstanding that there is no copper stock in the world which attracts more attention from year to year.

Calumet & Hecla is as conservative a stock as any in the world. People who want to inveigh against mining as wildcat speculation are always stopped when they are confronted with the history of Calumet & Hecla. It is a beacon light of conservatism and stability and the ownership of its stock is the hallmark of financial and social exclusiveness.

Thomas W. Lawson once called Calumet & Hecla "the most reliable mine in the world." It is probably all of that and may continue to be so for years to come, now that it has another big mine in its tailings from past operations alone. The ownership of the stock is handed down from sire to son and daughter. Whenever the children of the third and fourth generation have been good they have been rewarded with a share or two of Calumet & Hecla stock. It is a very scarce stock and it comes high.

There are many stories told in Boston concerning the discovery of the famous Calumet conglomerate, the basis of the Calumet & Hecla mine. One of the first to receive considerable credence was that the Calumet conglomerate was offered to Professor Alexander Agassiz, father of the present president of the company, Rudolph Louis Agassiz, on an agreement to divulge to the noted scientist, the secret of the conglomerate formation for a small consideration. This story is probably apocryphal, the authentic story making E. J. Hurlbert the accidental discoverer of Calumet & Hecla. Mr. Hurlbert was the agent of the Huron Mine, back prior to 1856 and was by nature a geologist and explorer. He came upon the formation, accidentally striking his foot against it, severely injuring himself. However, the exposure of the conglomerate vein may have been due before Hurlbert's advent to the accidental rooting of a hog, one of the "razorbacks" which ran wild in the Porcupine Mountains.

A man who is familiar with the story says that Hurlbert devoted a considerable time to the study of new formations with the view of ascertaining their possible commercial value. Among his friends he numbered three men whose greatest delight was to seek mines, "Bill" Royal, Amos Scott and a Cornish miner named Pasoor — and their friendship for Hurlbert led them to report any unusual rock formation they happened to detect. It was accepted as axiomatic at that time that no copper vein or rock of commercial grade could be found west of the formation in which the Huron workings were situated, which would be west of the present St. Louis-Old Colony-Mayflower formation in the Calumet district, and so Mr. Hurlbert directed his explorations far east of the Calumet conglomerate.

And here is where the hog figured in the discovery. Near the site of the present No. 4 Calumet shaft was an immense pine tree, conspicuous for miles around, and one of the pioneers designated it as "the forks in the road." The site seemed an ideal one for a roadhouse and Mr. Hrulbert assisted his friend, "Bill" Royal, to secure control of a tract of land 200 feet square, including the site of the present No. 4 shaft upon which to build it. Work was started in midsummer, 60 years ago, Mr. Royal first clearing the underbrush and small trees, which he piled upon the outskirts of his little plot, fearing that it would be dangerous to burn them. He constructed a temporary domicile for shelter for himself and family and later then began the construction of his house, which, was ready by Fall.

Mr. Royal had a large family and to help feed them he brought a number of pigs to his new home. There being no shelter, they were allowed to run wild until, one by one, they were converted into pork. In December only one pig remained, and this one sought protection from the wintry winds in the pile of brush on the outskirts of the plot. The pig was so wild that Mr. Royal was unable to catch him. One day "Dock" Ashweyler, then at the Delaware mine, stopped at Royal's roadhouse and while dinner was being prepared he volunteered to shoot the hog, as he had a gun with him. The offer was accepted and either Ashweyler's aim was poor or the hog unusually tough, for it survived the first shot and immediately sought shelter in the brush heap. The hunter and Royal followed it and after pulling away the brush discovered the pig in the course of its rooting had uncovered a solid rock formation of a peculiar greenish color.

This was reported to Hurlbert and after the investigation it proved to be the outcropping of the famous Calumet & Hecla conglomerate. So Hurlbert, after all, was the real discoverer of Calumet & Hecla. When he came upon a boulder of conglomerate unlike anything that had ever been seen in that country, he uncovered the lode upon which these marvelous mines were opened. He then repaired to Boston and obtained financial assistance, the Boston people investing $1,200,000 before the properties reached the dividend-paying basis. That amount of money was all that was required to start the enterprise, which has already paid more than a hundred times that amount in dividends and is probably good for as much more. In those days Government land was sold at $1.25 an acre and prospectors were allowed nine square miles each of mineral lands. These lands were densely covered with timber and the stumpage more than paid for them.

Some people say that Mr. Hurlbert was sorely disgruntled over losing out on Calumet & Hecla. It was said that after his discovery of the Calumet & Hecla conglomerate he continued his searching and discovered a lode richer than Calumet. This he kept secret for some time. Afterward he spoke about it, calling the lode the Tomahawk, but said he would never divulge the location of it, and left the country, a sick man, going to Rome. Later on he was written to by a friend who importuned him to reveal his secret, which he did. He said he discovered near the east quarter post of Section 2, Township 55, Range 33, a large rock, richer in copper than the Calumet & Hecla conglomerate, but not the same kind of rock. The rock at first appeared to be the outcropping of a lode, but in blasting into it it proved to be only a float from some other lode as yet undiscovered, but evidently a rich one.

His conclusions were that as there was a considerable overburden where the rich rock was found, the lode must be some distance to the west from which the rich rock was broken, as the appearance is that in the glacial age all the float was carried to the east. There is one thing in connection with this Tomahawk lode worthy of note. By consulting the map of this district it will be noted that the Hurlbert float was on the line of the outcroppings of the lode where a rich diamond-drill core was taken a few years ago, from hole No. 16, on the Mayflower property. The rich rock was found about a quarter of a mile east of the Oneco property. This Hurlbert float still points to the "Lost Lode" of the Lake district. When it is found a greater than Hecla may appear.

The merger of Calumet, Hecla, Red Jacket, Scott and Portland mines merely took the shape of a consolidation of the same interests under the general management of Professor Alexander Agassiz, who was called a "crazy Swiss Dutchman" for putting all his money into the properties. He was at the time Professor of Natural History at Harvard College. He was a naturalist, in which science he was known best, but he was also a geologist. He examined the Hurlbert discovery at the invitation of his brother-in-law, Quincy Adams Shaw, became familiar with the value of the company and staked his all upon its success.

The position that the heads of the company took in regard to expansion was progressive and altogether commendable. Calumet had two alternatives — to flicker out as ingloriously as a burned-out candle the pioneer work begun under the great scientist and Quincy A. Shaw, or to perpetuate its traditions with new energy. It chose the resolute path of expansion, and those courageous steps formed a striking chapter. Through the Manatou and Frontenac companies, it secured 60,000 virgin acres; it got options of 51% of Superior stock on the Nonesuch, Gratiot, New Jersey and La Salle; it quietly put $7,400,000 into 42,798 Allouez shares, 46,080 Centennial and 22,671 Osceola shares; the ensuing Bigelow litigation made it the party involuntary purchaser of 25,000 shares of Laurium, 10,516 Seneca, 27,507 Isle Royale; 9,600 more Osceola, 19,400 Tamarack and 24,796 Ahmeek — a further commitment in cash credits of $8,592,000.

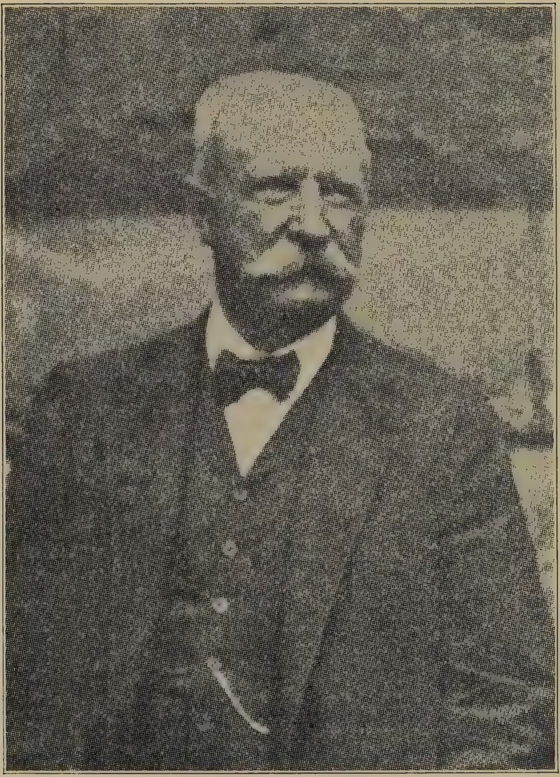
The management of the Calumet & Hecla, which in the days of the Bigelow controversy was charged with extravagance, refused however to make public the details of its business, but it is conceded today that it is now one of the most economically operated companies in the copper industry. It has 45,000,000 tons of copper-bearing sand from which an 80% extraction of copper can be made. These tailings assay better than 15½ pounds of copper to the ton, which places them on a parity for copper values with the virgin ones of the Lake district. The company owns or controls a great majority of the properties of the Lake district and it is estimated that 100,000,000 pounds of copper can be recovered from its tailings. This enormous amount of "brands snatched from the burning" would give the properties an enormous added value, after the richest of the famous conglomerate lodes have been exhausted.

The famous Calumet & Arizona, of Bisbee, Arizona, connecting with the Copper Queen, is an offspring of Calumet

& Hecla, most of the original issue of stock being subscribed for in Houghton County in small lots by miners and other workingmen. Like Calumet & Hecla, Calumet & Arizona sold down as low as 64 cents a share. It was afterwards worth $150 a share.

The office of Lee, Higginson & Co., in Boston, was a headquarters for the property and the friends of the firm bought a great many shares. Alexander Agassiz' heroic struggles at Lake Superior and Quincy A. Shaw's fight in Boston proved epochal. The theme is worthy of Balzac.

Mr. Shaw died in 1908.



WILLIAM ROCKEFELLER

William Rockefeller did not receive as much publicity as his much discussed brother, John D.,—yet he was entitled to it. He had much to say about the policies and the projects fathered by the Standard Oil Co., of which he was one of three leading factors.

He was energetic, jovial, and very well liked by his associates and business acquaintances. He was a big operator in the stock market, his interests being in oil and railroads. Mr. Rockefeller was not so ostentatiously philanthropic as were some of the other financial giants—and yet he did not worship the almighty dollar. His was a forceful personality whose influence counted much.

WILLIAM A. ROCKEFELLER

WILLIAM ROCKEFELLER, from 1865 to 1911 at the head of the Standard Oil business in New York, also president of the Standard Oil Co. of New York until 1911, was born in Richford, Tioga County, New York, May 31, 1841, and was about eighteen months younger than his brother, John Davison Rockefeller. He was educated at Oswego, New York and Cleveland, Ohio. He was bookkeeper and later partner with a concern in the produce commission trade and soon after joined his brother, John D. Rockefeller, in the oil business. For the last ten or fifteen years he was comparatively inactive in the market, his mantle having fallen upon his very able and excellent son, William G. Rockefeller, now past fifty. William Rockefeller, the elder, enjoyed many connections as trustee or director in other corporations, among these being the Standard Oil Co. of New York; Standard Oil Co. of New Jersey; Anaconda Copper Mining Co.; Consolidated Gas Co.; United States Trust Co.; Amalgamated Copper Co.; Chicago, Milwaukee & St. Paul Railway Co.; New York Central & Hudson River Railroad Co.; Central N. E. Railway Co.; Delaware, Lackawanna & Western Railroad Co.; Hartford & Connecticut West Railroad Co.; Harlem River & Portchester Railroad Co.; New York & Harlem Railroad Co.; Poughkeepsie Bridge and Railroad Co.; National City Bank; New York, New Haven & Hartford Railroad Co.; Hanover National Bank; National Transit Co.; United Metal Selling Co.; New York Mutual Gas Light Co.; New York Carbide & Acetylene Co.; Brooklyn Union Gas Co., etc.

Miss Ida M. Tarbell says of William Rockefeller:

"William Rockefeller, the brother of John D. Rockefeller, was not only an intelligent and energetic business man, he was a man whom people liked. He was open-hearted, jolly, a good-story-teller, a man who knew and liked a good horse, not too pious as some of John's business associates thought him, not a man to suspect or fear, as many a man did John. Old oil men will tell you on the creek today how much they liked him in the days when he used to come to Oil City buying oil for the Cleveland firm. The personal quality of William Rockefeller was, and always has been, a strong asset of the Standard Oil Co."

William Rockefeller died on June 23, 1922, at his home at Pocantico Hills at Tarrytown, New York. He had just completed a $250,000 mausoleum in Sleepy Hollow Cemetery, being the finest thing of its kind in the country. His wife died two years ago. He was obscured by his more prominent older brother, John D., who is rated by some a wealthier man, but at the time of his death it was a question whether William Rockefeller was not as wealthy, if not wealthier, than his brother since it is said that John D. has given away about $300,000,000 in various bequests. William Rockefeller in later years shifted many of his business responsibilities to the shoulders of his son, Percy.

William Rockefeller has been in ill health for many years. The state of his health and his whereabouts became a matter of intense public curiosity back in 1912-13, when the Congressional committee investigating the "Money Trust" desired him as a witness. He could not be found. For months the sergeant-at-arms of the House of Representatives led a search which was fruitless. The financier's Fifth Avenue house in New York was besieged by subpoena servers, detectives, reporters and an idle throng for days. His residence at Tarrytown, New York, the Standard Oil offices on Broadway and his clubs were watched without avail. Attorneys representing him finally surrendered by accepting the subpoena for him. It was disclosed that he was in his Southern cottage on Jekyl Island, near Brunswick, Georgia. His physician emphatically said that to ask Mr. Rockefeller questions on a witness stand was to invite his death. He was subject then to such spasms of coughing that speech above a whisper was likely to strangle him.

William Rockefeller traveled afield from the oil industry more than did his brother. He was a large factor in railroading, succeeding Cornelius Vanderbilt as a director in the

New York Central R. R., having been officer or director of a score of other transportation lines and has many more miscellaneous enterprises, including large interests in copper, insurance and public utilities.

Besides his sons, William G. and Percy A., he had two daughters, Ethel G., wife of Marcellus H. Dodge, and Emma, wife of Dr. David H. McAlpin, Jr.

William Rockefeller differed from his brother in that he was a club man, while his brother belonged to no club. He was interested but slightly in philanthropic work or religious activities. Alongside the millions his brother has given away, William Rockefeller's largest known gift was $100,000 to Wellesley College. He was a Baptist and the pastor of the First Church in Tarrytown has a $25,000 residence at a rental of $1 per month and gets his salary regularly on pay days. He was an enthusiastic motorist but saw nothing in golf, to which his brother is such a devotee.

In 1872 there was a strip of northwestern Pennsylvania, not more than 50 miles long, known as the oil region. This was at that time one of the busiest corners of the globe. Twelve years before this strip of land had been little better than a wilderness. Its chief inhabitants were the lumbermen, who every season cut great swaths of primeval pine and hemlock from its hills and in the spring floated them down the Alleghany River to Pittsburg. The western immigration which was then flowing like a great tide shunned the spot for years as too rugged and unfriendly for settlement, and yet in twelve years this region, avoided by men, had been transformed into a bustling trade center, where towns elbowed each other for space. The discovery and development of a new raw product, petroleum, made this change from wilderness to marketplace. This product in twelve years had not only peopled the waste places of the earth, it had revolutionized the world's methods of illumination and added millions upon millions of dollars to the wealth of the United States.

Up to the beginning of the nineteenth century, no oil seems to have been obtained except from the surfaces of springs and streams. Certain streams came to be named from the quantities of the substance found on the surface of the water as "Oil Creek" in northwestern Pennsylvania. In various parts of the country, oil was regularly skimmed from the surface of the water as cream from a pan or soaked up by woolen blankets, bottled and peddled as a medicine for man and beast. Then it was found to be far below the surface of the earth. It was discovered independently at various points in Kentucky, West Virginia, Ohio and Pennsylvania, by persons drilling for salt water, to be used in manufacturing salt. Sometimes the water they found was mixed with a dark green, evil smelling substance which was recognized as identical with the well-known "rock-oil." It became necessary to rid the water of this before it could be used for salt and in many places cisterns were devised in which the brine was allowed to stand until the oil had risen to the surface. It was then run into the streams or onto the ground. This practice was soon discovered to be dangerous, so easily did the oil ignite. In several places, particularly in Kentucky, so much oil was obtained with the salt-water that the wells had to be abandoned. These deserted salt wells were opened up years afterwards, when it was found that the substance which was so troublesome was far more valuable than the brine the original drillers sought.

In 1865 there were twenty refineries between Titusville and Oil City. Then the "Oil Bubble" burst in 1866. It was nothing but the irrepressible energy of the region which kept the business going in the panic which followed. Speculation in oil stock companies was a great evil. It reached its height in 1864 and 1865 — the "flush times" of the business. The stocks in companies which were hardly worth the stamps on the certificates were sold all over the land. In March, 1865, the aggregate capital of the oil companies whose charters were on file at Albany, New York, was $350,000,000, and in Philadelphia alone in 1864 and 1865 one thousand oil companies, mostly bogus, are said to have been formed. These swindles were augmented wit hthe names of officers of distinction in the United States Army, for the war was coming to an end and the name of a General was a most popular and persuasive argument. Of course, there came a collapse.

The chief refining competitor of Oil Creek in 1872 was

Cleveland, Ohio. Ever since 1869 that city had done annually more refining than any other place in the country. By rail and water, Cleveland commanded the entire Western market. It had two trunk lines running to New York, both eager for oil traffic, and by Lake Erie and the Channel it had for a large part of the year a splendid cheap waterway. Thus, at the opening of the oil business, Cleveland was destined geographically to be a refining center. Among the many young men of Cleveland who from the start had an eye on the oil refining business and had begun to take an active part in its development as soon as it was demonstrated that there was a reasonable hope of its being permanent, was a young produce commission merchant. Both members of this firm were keen business men, and one of them had remarkable commercial vision — a genius for seeing the possibilities in material things. This man's name was Rockefeller — John D. Rockefeller. He was but twenty-three years old when he first went into the oil business, but he had already planted his feet firmly on the business ladder by his own efforts. John D. Rockefeller, with a young Englishman, M. B. Clark, with whom he was associated in the produce business, met an Englishman of ability and energy, one Samuel Andrews, who asked them to back him in starting a refinery. They put in $4,000 and promised to give more if necessary.

Andrews was a mechanical genius. He devised new processes, made a better quality of oil and got larger percentages than were refined from the crude. The little refinery grew big, and Clark and Rockefeller soon had $100,000 or more in it. In the meantime Cleveland was growing as a refining center. In the new firm, Andrews attended to the manufacturing. The pushing of the business, the buying and the selling, fell to Rockefeller. Soon a second refinery was started — this time Will Rockefeller & Co. They took in a partner, H. M. Flagler, and opened a branch in New York to sell oil. Of all these concerns John D. Rockefeller was the head. Finally in June, 1870, five years after he had become an active partner in the refining business, Mr. Rockefeller combined all his companies into one — the Standard Oil Co. The capital of the new concern was $1,000,000. The parties interested in it were John D. Rockefeller, William Rockefeller, Henry M. Flagler, Samuel Andrews and Stephen V. Harkness.

Thus do we account for the beginning of the oil business and the genesis of Standard Oil.

The Rockefellers kept up the fight which was dissolved finally in 1911 into its present parts, these parts consisting of oil producing companies, like the South Penn. Oil Co., the Ohio Oil Co., and the Forrest Oil Co., the transporting companies like the National Transit Co., the Buckeye Pipe-Line Co., the Indiana Pipe-line Co. and the Eureka Pipe-Line Co.; of manufacturing and marketing companies like the Atlantic Refining Co. of Pennsylvania, and the Standard Oil companies of many States — New York, New Jersey, Indiana, Kentucky, Ohio, and Iowa; and foreign marketing concerns like the Anglo-American Co. There are thirty-odd of these constituent companies. Directors of the Standard Oil Co. act as directors on nearly all of the great railways of the country, New York Central; New York, New Haven & Hartford; Chicago, Milwaukee & St. Paul; Union Pacific; Northern Pacific; Delaware, Lackawanna & Western, Missouri Pacific; Missouri, Kansas & Texas; Boston & Maine, and other lesser roads. They go into copper and so we have the Amalgamated scheme. They go into steel and we had Mr. Rockefeller's enormous holdings in the United States Steel Corporation. They go into banks and we have the National City Bank and its allied institutions in New York City and Boston as well, a long chain running over the country.

The home of Standard Oil is 26 Broadway. This is a tall stone building at the lower end of the greatest thoroughfare in the greatest city of the New World. It stands solid as a prison, towering as a steeple, its cold and forbidding facade seeming to rebuke the headless levity of the passing crowd, and to frown on the frivolity of the stray sunbeams which in the late afternoon play around its impressive cornices. The three men in 1899 who were at the head of Standard Oil were Henry H. Rogers, William Rockefeller and John D. Rockefeller. Those were the only three men who could lend the name "Standard Oil" even in the most remote way to any project. Sometimes John D. Rockefeller used the name alone in projects in which Henry H. Rogers and William Rockefeller had no interest. Henry Rogers or William Rockefeller seldom or ever used the name in projects with which neither of the other two was associated. Sometimes, but not often, John D. and William Rockefeller used the name in connection with projects of their own in which Henry H. Rogers had no interest. Henry H. Rogers and John D. Rockefeller never were associated in projects in which William Rockefeller had no interest.

LOUIS FRANKLIN SWIFT

Louis Franklin Swift started his successful career at the very bottom of the ladder. He learned all departments of the packing industry thoroughly.

His hobby is flowers—and his interests other than in business are varied and many. He rubs shoulders daily with his men, and knows the strength that lies in co-operation.

LOUIS F. SWIFT

WHEN an employe of Swift & Co. wants to talk with the president, he knows just where to find him, and he knows that he will find him accessible at all times. Louis Franklin Swift, president of Swift & Company, had his business training under the eye of his father, Gustavus F. Swift, founder of the packing business which bears his name, who believed in open spaces and in working in the open; and the son has carried that belief along during the years which he has conducted the great packing business.

Born in September, 1861, at Sagamore, on Cape Cod, where as a boy he found much opportunity for swimming and sailing, Louis F. Swift has held his love for these sports through to the present day. Much of his ability to carry the detail of a billion dollar industry on his shoulders may be ascribed to the fact that as much of his life as possible is lived in the open.

Louis Swift entered the business as a boy, his first training being in the selection and purchase of cattle. He had one of the greatest preceptors in the world, his father, who is said to have possessed an almost sixth sense when it came to choosing live stock. When the business grew to a point where the elder Swift found it necessary to give up the purchase of cattle and devote his time to the departments of the packing end of the business, the son was ready to take over the burden of buying and for a number of years this was his direct charge. He was at the yards early and late.

Later he was taken into the office and plant, and there acquired by direct experience a knowledge of the many departments which go to make up the packing industry of today. When Mr. Swift was elected to the presidency to succeed his father, he assumed charge of a business of approximately $150,000,000 per year. Through his efforts, the efforts of his brothers, who are actively engaged with him in its conduct, and the organization, he has seen this figure grow until Swift

& Company may properly be said to conduct a billion dollar business each year.

The packing business is one of much detail and risk. The bulk of the product is of a very perishable nature and it takes constant application and care to avoid losses. Yet, in spite of the perishable nature of the product, its profits depend almost entirely on big sales volume and a comparatively rapid turnover. This, of course, has been coupled in recent years with the development of scientific methods in buying, dressing, handling, selling, and shipping. The salvage of what was waste material is also highly important.

This salvage of waste has developed into a large business in by-products that has been of value not only to the packer but to the producer of live stock, as well as to the retailer and the consumer. Without entering into a technical discussion of by-products, it may be said that they have a direct bearing on the price which the producer receives for his live animals at the great central markets, as when by-product values are low, the effect is immediately apparent in the price paid for live stock, and when they are high, this is again reflected.

Were it not for this by-product business, the consumer also would find that his steaks, chops, roasts, and other cuts of meat would cost him more. In all of the work attendant upon the bringing of these side businesses to successful fruition, Mr. Swift has had an important part.

Through all the work, and many times worry, he has steadily maintained a fresh viewpoint by never losing sight of the fact that there is more to living than just desk work. The vast ramifications of Swift & Company include twenty-three packing plants and more than four hundred branch houses. Mr. Swift makes frequent trips away from the general office. Whenever he is in a city with a Swift & Company branch house, that branch house is certain to receive a visit from the chief. But the branch house visit is not enough. Emulating Haroun al Raschid, he visits the highways and byways. A favorite diversion on out of town trips is a walk that will include numbers of retail stores, and he frequently talks with the retailers, asking questions about trade, demand for this or that product, how it may be stimulated, and why some articles sell more readily than others. Displays of his own company's products are more than pleasing. He "window-shops" for Swift products many times, and never loses interest in the efforts to increase the market for them.

Entering the business at a time when the organization was small and it was possible to know every employe intimately, and having lived for years close to the center of stock yards and packing house activities, Mr. Swift has never lost sight of the fact that it is the employes who have helped make the business grow. Although his organization contains approximately fifty thousand men and women, he knows a surprisingly large number of them, and retains a direct interest in the well-being of all of them. This interest has been manifested in recent years by the establishment of a non-contributary Pension Fund, by the development of an Employes' Benefit Association, and by the building up of machinery designed to bring management and employes into closer and more friendly relationship. Membership in the Employes' Benefit Association, or the E. B. A., as it is called, is voluntary. It is planned as a measure of safety and a means of providing funds and medical and hospital service in case of sickness or accident, and of furnishing immediate benefits to the family in case of death.

Mr. Swift believes that every one should invest his savings, and for that reason he has made it easy for Swift & Company employes to acquire stock in that company by a system of time payments. As a result, 17,000 employes of Swift & Company now own shares in the business, and more than 4,000 additional are paying for shares on the installment plan; this out of a total of more than 45,000 shareholders.

Mr. Swift, like the heads of many other large businesses, found that in recent years both management and employes were losing sight of the fact that close cooperation was needed between the two for the successful operation of the business. Plans were made and developed for the establishment of means to overcome this. A school for the education of foremen was opened.

"We organized this," said Mr. Swift, "for the purpose of selling the company' to the foremen. We knew that to reach the employes, it was necessary first to overcome the indifference or lack of knowledge of many of these foremen and straw-bosses regarding the ideas and ideals of the company. The old days when the foremen was czar of his gang have passed.

"It was hard at times to get these men to understand just what we were driving at. It took time. But I believe the plan has been successful. When we awakened our foremen to the fact that their men should know something of what the company was doing and trying to do, we met with a ready response.

"After our foremen had received this schooling—and more than three thousand of them did receive it—they were asked to carry the ideas back to the men and endeavor to bring home to each employe that there was something more to his job than the mere routine of his particular piece of work.

"Later a plan was put up to the employes for the establishment of plant assemblies at each of the points where Swift & Company has packing places. These plant assemblies consist of an equal number of elected employe representatives and representatives appointed by the management. As far as possible, the elected representatives are named from affiliated departments, so that the men elected will have an understanding of the work of those they represent. To be eligible for election, a person must be over twenty-one years of age, must be an American citizen or have his first papers, must have been in the employ of the company a year and in the department from which he stands for election for four months. It is the desire of Swift & Company to have its employes citizens of the United States. We believe that if a man is making his living and his home in this country, he should be a citizen, and we do what we can to impress the value of this citizenship upon him. Naturally if he aspires to leadership, as he does if he stands for election in any of the assemblies, he must be familiar with the aims and desires of the company and of the men, and therefore he must have been an employe of the company and his department for some time before he is competent to serve.

"While these plant assemblies have been in operation only since May, 1921, they have demonstrated their value to both employes and management several times. There is no doubt that the management has learned much of the feeling of the employes, and we hope that the employes have come to a broader understanding of the difficulties surrounding the management of a business of the magnitude of ours."

There are a number of things upon which Mr. Swift lays stress. He believes, for example, that the head of a department is in closer touch with that department if he works in it and is not closeted in a private office. As a result, there are few private offices. He follows this belief in his own business by doing a large part of his work at a standing desk outside of his own private quarters. At this desk he receives department managers, as well as office boys, and any others who may have business to transact with him. In other words, he rubs shoulders daily with his men, and they never feel that he is housed away from them.

Comfort in working conditions is another point. The general offices of the company are double windowed. The air is pumped into the building and washed; it is warmed to about 70 degrees in winter and cooled to that temperature in summer. The ceilings in the great building that houses these offices are covered with two inches of felt, and the absence of noise has proved of great value.

In addition to his business duties at the stock yards, Mr. Swift finds time to be a director in a number of other activities. He is a trustee and a supporter of Lake Forest University, and has one hobby—flowers. Big boxes of blossoms come weekly from his conservatories to the general offices and are generously distributed to various departments. He seldom is seen without a flower in his buttonhole and his gardens at his home at Westleigh, Lake Forest, are worth going many miles to see.

More than 60 years ago, Gustavus F. Swift, an 18-year-old Cape Cod Yankee, started in the meat packing business in Barnstable, Massachusetts. He had what seemed to him a large capital, $2,000, which he borrowed from his father, some good American common sense, plenty of good health, and an unlimited amount of energy.

Young Gustavus was an unusually bright and very active lad. He was soon quickly in the mastery of all the details of the retail meat business. It was a business he liked and in course of time he became ambitious to have a butcher store of his own. He had begun to have glimpses of wonderful possibilities. He dreamed of big things.

He was successful from the start and branched out into the buying and selling of livestock in a small way between farmers and butchers in that territory. Later he extended his operations and soon there were livestock centers at Brighton and Watertown, outlying towns of Boston.

The father of Gustavus Swift was a farmer. His first American ancestor, bore the name of William Swift, and came to this country in 1630. He settled in Sandwich, Mass. This forebear and his immediate descendants early took a constructive part in the building up of the Commonwealth. and later on, in the Federation of the Thirteen Colonies into the United States. Mr. Swift had started life with a good education. He was fond of plain living and had a fear of God impounded in him. When he entered into business he at once started in to save his profits and put them back into his business.

His plant at Barnstable was established by this young man whose policy at the outset was that of service and guaranteed satisfaction. Before he sold his first pound of meat he made up his mind that the only way to make a success in business was to serve his customers well and to back up every statement which he made about the quality of his product with an absolute guarantee.

In 1872 the alert and enterprising Gustavus formed a partnership with James A. Hathaway, buying and selling livestock, with headquarters in Albany, New York. Hathaway & Swift were successful from the start and Gustavus F. Swift became noted for his keenness, foresight and energy, and was regarded as an authority on livestock matters.

Hathaway & Swift opened an office in Chicago in 1875. Later we find them moving their business and concentrating their entire efforts at this point. In the fall of 1874 they had begun shipping dressed beef to the Eastern markets, which was then the principal consuming territory. To these markets, cattle had been shipped alive on the hoof and slaughtered in the local slaughtering centers in that territory. With the growth of the West and its constantly increasing livestock development an active livestock market had grown up in Chicago, which was then rapidly making itself felt as a center.

About this time the refrigerator car was invented and perfected. Mr. Swift was not the inventor of this car, but was among the first to see its practical use and had as much to do with the development of this dressed beef business as anyone else in the trade. The whole livestock business was revolutionized by the refrigerator car, for to be able to slaughter the cattle at some central point near its origin and to pay freight only on dressed beef was an enormous advantage. Mr. Swift determined to incorporate the refrigerator car business and in 1885 Swift & Co. was incorporated with a capital of $300,000 with Mr. Swift himself as president.

The phenomenal growth of the business is a record in itself, and the additional capital was put in from time to time to meet successfully the demand for new and enlarged facilities, so that in a few years a business that was started with a capital of $300,000 and 1,600 employes, doing the slaughtering business in a few small buildings, has grown to a company with a capital of $150,000,000 and with over 60,000 employes and had reserves of over $200,000 a year.

Gustavus Swift was a very shrewd far-seeing man. He was, in fact a business genius of unusual calibre. He blazed the trail as a pioneer for one of the biggest industries of the age. He was a member of the Methodist Church, a firm believer in the Christian faith, an honest and fair man, of few words, but of quick and effective action.

He was a great educator in his business. His only intention was to make a better man of those he was associated with in daily life. Efficiency he constantly strove to develop. Among his many employes, he was an example of business efficiency himself. His criticisms were helpful at all times though they seemed to be at times severe.

The vast business of Swift & Co. fell to the charge of Louis F. Swift, who was then the eldest of the eight surviving children, when his father died in 1903.

Swift & Co.'s policy of service has been proved by the great growth from that early Barnstable building to the vast Chicago plant. In addition to its Chicago establishment, there are large plants at Kansas City, Omaha, East St. Louis, St. Paul, St. Joseph, Fort Worth, Denver and Portland. Combined, the Swift plant covers over 200 acres of land and gives employment to more than 60,000 people.

When Gustavus Swift died his guiding principle was for the family to hold together. They have held together. Each, when old enough, has entered the business, beginning with the lowest rung, has, without favoritism, gone through all departments and mounted to an executive position. Thus, one is in charge of beef and mutton, one of the pork, another of soaps, still another of branch houses, and yet another of the New England district, and so on.

In 1861 the yards were designed primarily to furnish fresh meat to Chicago. There were then no central packing houses, with branches and car routes making distribution simple and efficient over great territory.

Gustavus F. Swift and other early builders of the packing industry were not willing to accept the situation as it was. They saw that with the great growth of population and industry in America, a more efficient method of meat packing and distribution was imperative. There was no question but that their vision has proved an indispensable service to the American people.

The development that has taken place in the meat packing industry, of which the growth of the Chicago stockyards is indicative, has meant a great deal to the meat producers and consumers.

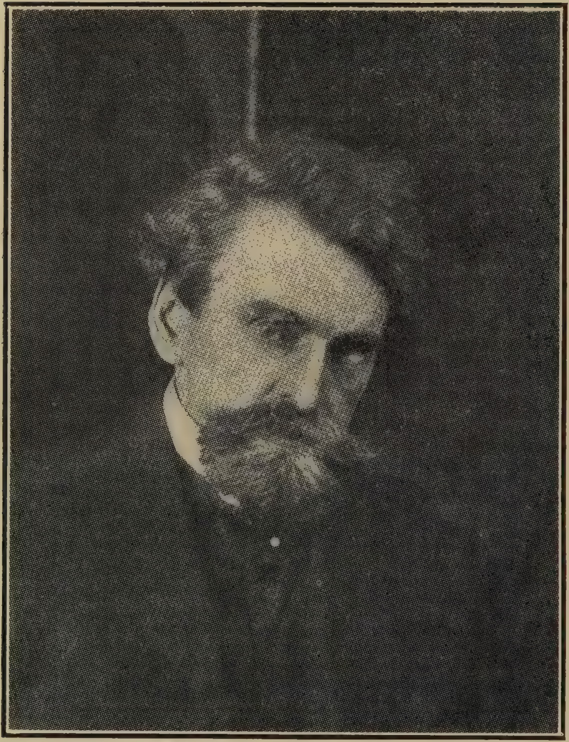
Under the old plan by which every butcher did his own slaughtering the cost of preparing meat was high. There was no division of laobr, most of the by-products were thrown away, only a few animals were handled at a time, the conditions under which meat was dressed were not of the best, and the meat was of inferior quality.

Today there are between 300 and 400 buyers in the Chicago market alone, the livestock is bought in open competition, and cattle, hogs, sheep and calves are dressed by the thousands instead of one or two at a time. Every modern mechanical contrivance known is used to reduce handling, and every man performs a duty in which he is expert. This skill in production is the result of scientific management.

Let it be borne in mind that it was only about a half century ago that people secured all their meat from a local butcher who did his own slaughtering.

What tremendous changes have taken place since those early days. The demand of the consuming public for a steady supply of meat, for uniform high quality combined with the lowest possible prices, and for efficient service, have built up the vast meat industry that is so essential to the nation's welfare today. Those who serve the nation by providing its meat have many masters. There are hundreds of thousands of stock raisers, asking for a quick market and a high price for their livestock. There are millions of consumers demanding, through tens of thousands of retail dealers, a constant supply of meat at as low a price as possible. There are approximately 60,000 wage-earners of Swift & Company properly eager to earn more. More than 45,000 holders of Swift & Company shares who have a right to expect a reasonable return on their investment. Of these shareholders more than 17,000 are employes of the company with more than 4,000 purchasing shares on gradual payments.

To serve and satisfy all these interests is in itself a problem. But Swift & Company have solved the problem by performing a complete and essential service with maximum efficiency at its nominal profit of a fraction of a cent per pound for all products sold, made possible through the complete utilization of all by-products.



WILLIAM A. CLARK

William Andrew Clark started mining at an early age—and mining started him. He was fearless, shrewd, and a real man—the type Jack London might well select for a hero.

He first made money by selling tobacco to miners and his chief interests have always been centered in the mining industry. He has amassed millions, and controls many mining, railroading, and smelting enterprises.

WILLIAM A. CLARK

WILLIAM ANDREW CLARK, mining magnate and multi-millionaire, was born near Connellsville, Fayette county, Pennsylvania, January 8, 1839. He was born on a farm. All the education he received was in the common schools, and, like all farmers' sons, he had to work on his father's farm in summer, attending school in winter. His father, John Clark, and his mother, Mary Andrew Clark, were natives of that same country-side, and their ancestors came from old Presbyterian stock from the north of Ireland. His grandfather was of good old Irish stock, and from him the boy inherited his qualities of thrift and industry. His grandmother was of French Huguenot descent, and from her he received the pronounced artistic instincts which found expression as soon as he became wealthy.

In 1856, when William was 17 years old, his parents went west to Van Buren County, Iowa, where his father took up farming. There the boy worked on the farm, also studying law at the University of Mt. Pleasant. He had there his first experience in teaching school, an experiencee to which he looks back with particular interest. But the humdrum life of a school teacher had little fascination for so energetic and ambitious a young man, and becoming restless, he decided to go further West and join the pioneers. So from 1859 to 1862, Mr. Clark taught school in Cooper and Pettis counties, Missouri, and in 1862 he decided to go to what was then the "far" West.

He had caught the mining fever. He traveled overland to Colorado, where, after working a quartz mine, he made his way to the newly discovered gold camp of Last Chance Gulch, in the Bannock district in Montana. At Bannock he joined a stampede to a new district on Horse Prairie Creek, which had just been started, and there he began working a gold placer claim. The first year the claim netted him about $2,000 and this was his real start toward his present fortune of many millions. After two years, spent in placer mining, he branched out into the mercantile business, in which he saw big opportunities. He brought a load of supplies from Salt Lake City and was amazed at the profits he was able to realize.

In the spring of 1865 he opened a general merchandizing establishment in Blackfoot City. The autumn of the same year he sold out his interest there. He had noticed that there was great scarcity of tobacco, and, with that keen foresight that has always marked his financial ventures, he went on horseback to Boise, Idaho, where he purchased several thousand pounds of this necessity to miners, paying $1.50 a pound for it. And thereby hangs a tale which is characteristic of Senator Clark.

It had been snowing steadily for a month and Last Chance Gulch, the new Montana mining camp, was buried deep under a heavy white blanket. For a week or more no communication had been possible to the outside world. The camp was practically cut off and provisions were running low. It was getting close to Christmas, too, when the miners scattered among the hills here at work on their various claims would gather in camp and "whoop things up."

But Last Chance Gulch isolation was unexpectedly broken one day by the advent of a two-horse sled bringing mail, which contained bad news. The steamer with supplies for the camp had struck a snag on the Missouri River and gone down with all her cargo.

This meant—above everything else—a tobacco famine for Last Chance Gulch and there was growing excitement and anger among the red-shirted miners. Many were the lamentations, for to the rough fighters of the wilderness, tobacco was a precious commodity . And then there was Christmas close at hand, a time of jollity and revelry.

Young Clark who was living in the camp, undertook to bring in supplies. He decided that there was more money at that time in trading than in gold mining, so he put all his capital into provisions, which he bought at Salt Lake City and sold to the miners for their gold dust. The young man increased his capital in this way to $7,500.

The moment Clark heard the story of the sinking of the Prairie Bell, he saw a golden opportunity to double his capital within sixty days. He determined to get tobacco for Last Chance Gulch or die in the attempt.

The thermometer was registering 23 below zero, when Clark mounted his horse for his wild, dangerous ride of 250 miles to Boise City, Idaho,—his nearest supply point. The miners gave the plucky man a rousing send-off, but few among them ever expected to see him alive again.

Clark had been teamster, miner, trader and had lived a life of insistent and hard labor. He had "turned" gold wherever there was a likely stream. He had worked in the roughest kind of wilderness, so by this time he was inured to all sorts of weather and hardships, and was as hard as iron physically. Yet to most people his expedition seemed doomed to failure.

But on January 1, New Year's Day, Clark rode into Last Chance Gulch with two thousand pounds of tobacco in his wagon which had cost him three thousand dollars. He sold it out at five to six dollars a pound to eager purchasers. And was the most popular man in Helena.

This was, he tells, the worst ride of his life. The snow was deep everywhere and his horse could hardly get through. A dozen times he thought it was all up for him, but he stuck to his saddle and his horse was a fine animal. It was really the horse who pulled him through.

Another year he was doing a wholesale tobacco business all over central Montana, and had gained such a reputation for honesty and square dealing that large sums of money were entrusted to his keeping by the miners, for, of course, there were no banks in the camp at that time. Another of his famous trading operations was in baking powder, after which the boys called him "Baking Powder Billy." After young Clark's famous ride, which was the foundation of his fortune, he opened other stores in the then Territory, continued his trading, even securing a mail route from Fort Benton to Sioux City, and later a "star" route between Missoula and Walla-Walla and made money all the time!

Mr. Clark tells a good story on himself in those early days. Among his precious belongings was an old army overcoat. It was made of the finest materials and was far more comfortable than most of the clothing that could be bought in that neighborhood. The coat, as was the style of army overcoats, had two long tails, and one night at a dance, some man with a mean streak in his nature, deliberately cut off one of the coat tails. There was no chance to get another and winter was on—a bitter cold winter. Clark didn't like the looks of the coat with one tail gone, but it was either swallow his pride and wear it or freeze, and he chose the former course. The boys at the time poked considerable fun at him, and he did cut a picturesque figure, but he didn't freeze.

In October, 1866, Mr. Clark made a trip East by way of old Fort Benton, the head of navigation on the Missouri. The voyage to Sioux City, Iowa, took 35 days. He visited his parents in his old home in eastern Iowa, and after a trip through the east and south, returned to Montana in the spring of 1867 and took the "star" route contract preveiously referred to for carrying the mails a distance of 400 miles. In the course of that trip east, he made a trip to New York City. He went by stagecoach to Green River, Wyoming, then to the western terminus of the Union Pacific. On reaching New York he saw Robert W. Donnell and formed partnership with him. They established a mercantile and banking firm. They shipped a large stock of merchandise to Helena where the wholesale business was established. Later they opened a bank.

In 1870 their headquarters were transferred to Deer Lodge, and a Mr. Larabie was made a partner. The firm of Donnel, Clark & Larabie did a tremendous business throughout Montana and all that western section. The firm had plenty of capital. In May, 1874, Clark and Larabie purchased the interest of Donnell in their Montana business. Subsequently Mr. Clark and his brother, J. Ross Clark, assumed full ownership of the Butte bank which is known today as W. A. Clark & Bros.

It was in his mining investments and operations of mines and mills and smelters that Mr. Clark gained his phenomenal success. He was thirty-three years old when he retunred to Butte, the heart of the Montana copper country. He had purchased the Original, Mountain Chief, Gambetta and other mines, nearly all of which turned out to be splendid producers.

The first smelter of importance in Butte was erected by the Colorado & Montana Mining & Smelting Co., which Mr. Clark organized. In 1880 he organized the Moulton Mining Co., which erected the Moulton mills. About half a million dollars was spent on this plant and for many years it was operating at a great profit.

Mr. Clark and his son, Charles W. Clark, owned the Butte Reduction Works and the Colorado & Montana Mining & Smelting Co. and controlled several other mining propositions in the Butte district. He owns valuable mining properties in the States of Utah, Idaho and Arizona, and among the most important is the United Verde Co. in Arizona, an immensely valuable mining venture.

The mention of Butte conjures a story of wealth. Butte, Montana, brings down through the pages of American history one of the most remarkable developments of the world. Butte has always been classed as a copper camp, and primarily it has always been so, until within a comparatively few years. It is only a slight trip back in the pages of history to the first yield of gold ore. This was in the days of our Civil War, when placer mining started in 1863.

Looking back at this we find the camp dates from 1863, when placer mining for gold was started. Then from this it extended to silver mining. Copper had been so handled from the start in the silver mines. The increasing percentage of copper and silver mines in the western part of the camp, in 1869, brought about the building of the first copper smelter by Senator W. A. Clark. The product was an argentiferous one, in which its full value was silver, the copper being used mainly for a carrier.

In 1881 the great Anaconda mine was opened, treating ore at first that averaged thirty ounces silver to the ton, the silver bullion containing half copper. In 1882 the Anaconda found chalcocite and from this find a considerable shipment of fifty per cent ore was made to Swansea. From that date copper production rapidly increased, while the output of silver mines has declined, but Butte became a larger silver producer than ever before, owing to the metal being secured as a by-product to the copper in the mines.

This leads to the recital of how Senator Clark secured posession, of the United Verde mines, his chief possession, at Jerome, Arizona. There was a time in his early Butte career that Clark in order to continue his business got very hard up for ready money. Traveling East he became acquainted with Colonel Robert M. Thompson, one of the leading mining men of the East. Col. Thompson was then rated as a wealthy man, and he became so impressed with Clark's ability that he let him have $100,000 to help him out on some of his operations. In due course this money was returned to Col. Thompson. Things went on for some time without these gentlemen meeting each other or knowing much of each other's affairs.

One day Clark walked into Col. Thompson's office in New York and the Colonel told him about the financial troubles of his Oxford Copper Co., which was the first copper refinery to be built on the Atlantic coast. Clark had a great hankering for details—reflected in the way he keeps in touch with so many and varied industries which he independently carries. Col. Thompson did not know that Clark had prospered in Butte since he made him the loan, and that he was in a position to come in and assist him with his affairs in the Oxford Copper Co. Clark's suggestion to Col. Thompson was that they cross into New Jersey to the company's properties and see what was the exact condition of its affairs. When he got there he stayed more than a week and went into every detail of the company's business. He helped Col. Thompson put this proposition on its feet and it is one of the most successful copper refineries in the East.

Looking over the books and accounts of the Oxford Copper Co. Clark discovered that a mine called the United Verde had been shipping high-grade silver-copper ore. These ores were so high in grade that instead of being smelted primarily they were sent direct to the refinery. Clark made a note of this and when he returned to Butte he sent Joe Giroux, then his mining engineer at Butte, to Arizona to look at the properties. Joe was one of the brightest men that

Clark ever had. Joe went to Jerome to look the United Verde property over and hurried back to Butte to tell Clark that it was really a wonder.

At that time United Verde was controlled by old Governor Tritle, of the then Arizona Territory. Under him and his associates it had been worked mainly for its rich surface ores, which were shipped by wagon to Williams, Arizona, about 45 miles. Governor Tritle could have made the property win out, but he was not an experienced mining man. The property was allowed to run along in a slip-shod way, got in debt, and was in no position to go ahead and show results. There was also interested in the company a man by the name of Jerome after whom the town was named. About this time United Verde, which had a great local reputation before the railroads were built through in Arizona, was examined by Dr. James Douglas, then the head of Phelps, Dodge & Co., and the father of young James Douglas, the moving spirit of United Verde Extenson today, but the doctor did not see fit to take over the property.

After Joe had examined and reported, Clark set to work to secure control of the property and bought up various stock interests in this company. When he had secured the control, he organized a company which authorized an issue of bonds to the amount of $300,000, which he financed himself, and with these bonds issued, the development of the property was undertaken.

At the same time the United Verde & Pacific railroad, a narrow gauge road was built from Jerome, where the property was located, to Jerome Junction, on the line of the Santa Fe & Phoenix Railroad. This railroad is an extremely crooked affair, and at almost any point along the line to Jerome Junction it was said a conductor on the rear of the train could talk to the engineer on the front.

This is the story, now known to many men, of how the old Senator got hold of United Verde. Some people talk about Clark's luck, but here you see how the thing worked out. Old Governor Tritle had the same chance Clark had and if he had spent the money on the mine that he had spent in society functions while he was Governor of Arizona Territory, he would be the owner of United Verde as a prosperous paying mine. It was all pure calculation and skill. Clark took note of the mine by shipments and sent his shrewdest field engineer to see the property and there was no gamble or chance about it. It was the result of scientific study.

About this time Clark was at the New Orleans Exposition, where he went as commissioner from Montana. There he met F. M. Murphy, commissioner in charge of an ore exhibit from Arizona. Murphy went on to tell Clark about the United Verde and that he thought it was a pretty good mine and would be worth looking up. Clark is a man who is in the habit of taking in considerable information, but did not disclose the fact that he had already made a memorandum of it in his note-book. Later, when Clark had acquired the United Verde mines, Murphy, who was at that time a struggling miner in Yavapai County, demanded that he pay him a consideration on the purchase of the United Verde mines, which Clark absolutely declined to do, but said that if he could be of any assistance to him in any of his operations he would gladly loan him $20,000. This proposition Murphy declined and sued Clark for the amount. The case was heard before a jury and to Clark's astonishment it brought a verdict of $2,000 for Murphy. It was certain that Murphy was either entitled to $20,000 or nothing. Senator Clark appealed the case and won it. After this experience, Murphy became associated with "Diamond Joe" Reynolds. This association resulted in his securing the control of the Congress Mines, out of which he made a fortune.

The early history of the United Verde shows that the location was staked in 1880 by a group of prospectors, who finally became discouraged and gave it up. The property was sold by the late Col. Bill Reynolds, of Providence, R. I., acting as agent for the owners, to a syndicate of New England men. These men arrived at the conclusion that the mine was worthless and brought suit against Reynolds for fraud, obtaining a judgment against him. The property was sold to Ex-Senator Clark for $30,000. Clark endeavored to enlist the interest of several of his associates in the property, but failing to do so, began operations on his own account.

The following story has been told several times, but is always of interest: Some years ago when French capitalists were enamored of American investments, especially copper investments, having bought heavily in the Utah, Chino, Ray and Miami, they thought they would like to own United Verde because it was such a world's wonder. They approached Senator Clark and bartered with him for a trade on his copper bonanza. Senator Clark was willing to sell. He said: "I am well along in years and am willing to let you have the property at less than 50c on the dollar. You send your engineers into the mine, take the maps and measure up my blocked out and proven orebodies. I, of course, can make a good deal more than 5c a pound taking out the copper, but I will sell on the basis of 2½c a pound for the copper now in sight in the mines."

The French were delighted. Visions of millions dangled before their eyes, but alas! the millions were too many. When they had figured out the value which seemed so reasonably appraised, it netted up at 2½c a pound profit, the sum of $500,000,000. The French, it is said exclaimed, "There isn't that much money in the world," and left without asking the Senator to reduce the price. United Verde has produced more than $200,000,000 in copper and gold to date. It has as a corporation paid about $50,000,000 in dividends.

Six miles below Jerome, where the United Verde mine is located, he has built the model town of Clarkdale to house the employes of his copper plant there. Senator Clark is greatly interested in the mapping out and building of this town, which will be one of the numerous monuments to his memory. He is a great believer in solid construction, sanitation, convenience and comfort and all these features have been incorporated in this new town of his in the Arizona desert. He pays the best wages and wants his employes to live well.

With characteristic foresight the Senator has gone into orcharding extensively near Clarkdale and has set out several hundred acres of fruit trees, for the particular purpose of forestalling suits for damages on account of fumes escaping from the new and enlarged smelter. This smelter has a capacity for handling about 6,000,000 pounds of copper a month, practically double the requirements at present of the United Verde mines. For many years, during the period in which Clark has operated United Verde, it has been understood that he was hostile to the development and activities of surrounding properties. But the development of the United Verde Extension property by the Douglas interests, affiiated with Phelps, Dodge & Co., has apparently changed the complexion of things in that section. These interests have shown ability to set up a mining and smelting establishment and are, like Senator Clark, Arizona copper pioneers. Their advent into Jerome has undoubtedly been a factor in reducing friction and broadening public spirit.

Clark has never asked the public for a dollar for assistance in developing any of his properties. He has been his own banker. He went to Montana over fifty years ago and worked a while at the placer mines, but in the early days found it more profitable to sell merchandise and tobacco to the miners at prices which would throw the present high cost of living into the shade, due to the primitive conditions of transportation and distribution in those days before the trails had been fully blazed.

United Verde is a closed corporation. The mine belongs to the Clark family, practically all stock being the property of Senator Clark himself. A woman in Bangor, Me., at one time owned a few shares which she bought against the advice of several of her well-meaning neighbors who wanted her to invest money in a local bank or—better still—put it into some of their own enterprises. The Senator individually is reputed to own 97% of the stock.

The career and character of William Andrew Clark can not be pile-driven into a single short chapter. His wide and varied connections in the mining industry, at all times eminently correct and successful, of themselves made him a man who can not be adequately dealt with in a brief sketch such as this. He did not become fully sucked into the maelstrom of the Heinze-Amalgamated feud, but he became a large Butte mine-owner and was necessarily hovering around—much in the limelight and sometimes on the firing line—especially after he announced his ambition to become a United States Senator.

He did not, like Heinze, jump in the rough and tumble campaigns which about the time involved the politicians and the judiciary of Montana. But he enjoyed at times the valuable alliance of Heinze, who was a good deal of the offensive and defensive kind, framed up for mutual self-preservation and aggrandizement. They acted together when it suited their interests without ever establishing anything approximating even as much as a platonic affinity between themselves. There was nothing in common between them except a common interest—a common defense against the aggressions of Amalgamated. Heinze, dashing, mercurial, great combination of boy and man, was the antithesis of the Arctic personality of Clark. Only the cohesive power of self-interest brought them together in a mutual working campaign.

In the light of his magnificent and clean-cut triumphs in the world of independent mining, smelting and railroading, it is best to consider Senator Clark's achievements. In that department he has been sufficiently constructive and conspicuous to offset and atone for the alleged defections and remissnesses incident to his invasion of the ranks of statesmanhip. His political career was stormy and ill-starred, at variance to what is to so many people the slippery, hazardous business of making money by mining. In that field he has been the architect of his own fortunes, of which the de luxe Fifth Avenue mansion, the Kohinoor of the several architectural gems of that wealthy thoroughfare is but an outward and visible sign.

That mansion is one of the most ornate and lavish in all the world. It was built at a cost of $10,000,000 and took seven years in the building. The furnishings of the "modern instance" of a costly mansion are of the most rare and expensive type. They include many valuable decorations, notably Fortuny's "The Choice of a Model." Senator Clark paid over $100,000 for tapestries that belonged to the consort of Queen Isabella of Spain and for certain Persian and Chinese rugs he paid a quarter of a million dollars.

Clark has interests from Maine to California. He owns a granite quarry at North Bay, Maine, and together with his brother, J. Ross Clark, owns an immense sugar plantation in California. He is one of the principal owners of the W. A.

Clark Wire Works at Elizabethport, N. J. He has large real estate investments in New York, Washington and other cities. He is president of the San Pedro R. R. Line, running from Salt Lake City to Los Angeles, a railroad with more than one thousand miles of track. He owns railroad interests in the East, and is interested also in and around Missoula and throughout the Bitter Root and Flat Head sections of Montana.

With all these varied enterprises, Mr. Clark maintains a large interest in Butte. He owns the street railway lines and Columbia Gardens, of which he is very proud. He maintains there the Paul Clark home in memory of his son Paul, who died just as he was ready to enter Yale.

His activities include almost everything in the West in which there is any money to be made, mining, smelting, merchandising, banking, steam and trolley railways, newspaper publishing, etc. He owns the Butte "Daily Miner," one of the leading newspapers of Montana. He represented Montana as State orator at the first great exhibition held in this country, the Centennial Exhibition of Philadelphia in 1876. The following year he was orator and grand master of the Masonic fraternity of Montana. He has seen military service as major of the Butte Battalion, leading it in Nez Perce campaign in 1878. He presided at the Constitutional Convention of the State in 1884 and 1889. Montana sent him as commissioner to the New Orleans Exhibition in 1884. In 1898 he was elected to the United States Senate, but resigned, and was afterwards elected for the term 1901-1907.

Senator Clark first married a boyhood sweetheart, in his Connellsville days. She died in 1893. The present Mrs. Clark was formerly Miss Anna E. Chappelle, of Butte. He married her at a small hamlet near Marseilles, France. For awhile they lived at a retreat in France owned by a Benedictine monk, and then in a magnificent villa at Manitou in the Algiers.

Senator Clark is a quiet, modest man and dislikes publicity. He silently pursues the tenor of his way, and looking at his face, it is hard to picture him as the master mind of the mighty mining, smelting, railroad and banking enterprises which he controls.

WILLIAM WOOD

William M. Wood, the textile giant, towers head and shoulders above any other man in that field. The American Woolen Company, of which he is the head is a $100,000,000 organization.

Mr. Wood conceived the idea of building a model town for some of his employes, and Shawsheen Village, now justly famous throughout the country, stands as a lasting monument to this thoughtful and efficient executive.

WILLIAM M. WOOD

WILLIAM M. WOOD, the textile giant, is a native New Englander. He is the founder and head of the American Woolen Co., operating the biggest textile mills in the world. Wood was born at Edgartown, a quaint little port at the eastern edge of the island of Martha's Vineyard, Massachusetts. The island of Nantucket, long renowned for the quality of its whalers and seamen, is only a few miles away. He was born on June 18, 1858, and is of English and Portuguese ancestry, the son of William Jason Wood and Amelia Christine Madison Wood. William passed the first few years of his life in Edgartown, and like most of the other Edgartown boys of his time was of sea-faring lineage. His father had left the sea, except for brief coast voyages and because of his delicate health he was unable to gratify his ambition to become the master of a ship. The elder Wood was a man of irreproachable reputation and those who knew him always spoke of him in the highest terms.

His parents moved to New Bedford, the nearest great town on the mainland, at the head of Buzzard's Bay, which held the relation to the southern coast of Massachusetts not incomparable with the position of Boston further north. New Bedford is the port of entry of Massachusetts in Bristol County on the Acushnet estuary, 56 miles south of Boston. For a century prior to 1854, it was the principal whaling center of the world, sending out over 400 vessels and receiving 50,000 barrels of sperm and 120,000 of whale oil annually. Since that year, however, manufacturers have claimed its attention, and it now contains cotton mills with several million spindles, foundries, oil refineries, drill, boots, shoes, flour, glass and plated ware manufactories. New Bedford cotton goods are the finest made in the United States.

When the senior Wood moved to New Bedford, he bought a home in the western part of the city, about a mile and a half from the center. This home was purchased with his savings and was a present to his wife. It was a small cottage of eight rooms, and was located in what was then the country. Farms were all around and the environment of young William Wood was one of trees and fields and meadows and not the crowded streets of a mill community. Industry and thrift were the ruling characteristics of the region, and it was a point of pride with all of them to sustain themselves by their own honest efforts. The boys were given a sound practical education, and were expected to become breadwinners at an earlier age than at the present time. William Wood's boyhood home was not unlike that of many other great New England manufacturers. New Bedford in those days was not distinctly a manufacturing city, but it ranked as the first whaling port of the country and was said to be the wealthiest city per capita in the United States. Its streets were overhung with beautiful, great elms. The population at that time was approximately 20,000 and there were few or no really poor people in the city. Today it has more than 100,000 people. Mr. Wood's family, like their neighbors, were self-respecting, honest, hard working and industrious people.

In the schools of New Bedford, so strong is the New England idea of industry inculcated, that many boys work after school hours to increase the family income. Young William Wood observed a number of boys who were dismissed from school about twenty minutes before closing time, so that they might distribute the New Bedford newspapers. He envied those boys. He thought they enjoyed a special privilege, and he wanted to enjoy it too. So his father was persuaded when he was nine years old to inquire at the newspaper offices for a job as paper distributor which paid fifty cents a week. All he succeeded in doing was to get his name on the waiting list. He never heard from it and it was his first disappointment and a bitter one.

But there passed the Wood home daily an elderly Quaker merchant, driving from his house in the country to his dry good store in town. He was of the old school, wearing the distinctive Quaker clothing and broadbrimmed silk hat and he stood high in the estimation of the citizens. His name was

George M. Eddy. He knew the Wood family and once he stopped his carriage and asked young Wood if he would not like to work in the store as a cash boy during the long summer vacation. The pay would be $1 a week for the first four weeks and after that $1.25. The job was accepted. And this was the first money William Wood ever earned. His mother carefully put aside this money for him, and it was used to buy his school clothes and other useful articles for the family. He worked at this store not only during the summer vacation, but during the Christmas holidays also.

Young Wood's first venture as a merchant came about this time. Going into town one day from his home, a mile and a half from the centre, he remarked a store where there seemed to be considerable excitement. An auction sale of apples in barrels was in progress in the front of the store. The young boy knew little of auctions, but soon learned. He followed the bidding and when a barrel was about to be knocked out for $1.25 he bid it in. He borrowed a wheelbarrow from a neighbor and trundled the barrel over the road, taking it to the cellar of his house and dumping the contents on the floor. The apples in the top of the barrel were very large and desirable, but not so much could be said for the remainder. The young speculator polished every apple to make it look its best, then sold them by the peck, around the neighborhood, doubling his original purchase money. The next day he bought two barrels and by Saturday night had acquired quite a sum.

His success was such that a local grocer viewed with alarm the invasion of the enterprising new merchant and so learned where the boy bought his apples. This grocer turned up at the next auction sale and bought them up himself at a price that left no profit for anybody. That was young Wood's first introduction to methods of elimination of competition.

His father died when he was twelve years old. As the eldest son, he became the head of the family. He attracted the friendly attention of some of New Bedford's foremost business men, who could not help noting the dark-eyed, energetic, handsome lad of pleasing manners. He had attended the New Bedford High School, but did not graduate. He had a studious and inquiring mind, a remarkable memory with habits of industry and perseverance. After leaving the public schools he spent his evenings and nights for several years in study, being interested in Latin, French and German. He kept his own private books in German, and studied algebra and the higher mathematics. He was studying rhetoric at fifteen years of age and was studying the violin, when the cost of the lessons compelled him to abandon music. At eighteen young Wood was well advanced in English literature.

His guardian, appointed at the death of his father, was Hon. Andrew G. Pierce, one of the most estimable citizens of the town. Mr. Pierce was deeply interested in the orphan boy and did all he could to facilitate his education. Mr. Wood today acknowledges his indebtedness to his guardian for the help he was to him.

About this time the textile trades were beginning to absorb part of the attention of the industrial forces of New Bedford. The capital and activities of the old sea merchants were being attracted into the manufacture of cotton goods. In the accounting room of the celebrated Wamsutta Mills, young Wood was employed. These mills were pioneers of the manufacture of the finest cotton fabrics, being the only cotton mills in New Bedford and at that time a relatively small affair.

Three years were spent in the accounting room of this mill and during these years he was alert to master every detail of the business. He came to work early and stayed late, according to the customs of the place and times. He was a model of industry and application. He put in long hours at the Wamsutta Mills. And he had the pleasure of serving under remarkable men. Hon. Joseph Grinnell, a brother of the great merchant after whom Grinnell's Land in the Arctic Ocean was named; Hon. Jonathan Bourne, father of the Senator from Oregon; Hon. Andrew G. Pierce, and Hon. William W. Crap were among the officers and the managers of the Wamsutta Mills were generous to their young protege. He was promoted and after three years was transferred to the manufacturing department, where he spent three years more.

He learned the manufacturing end of the business from men like Thomas Bennett, Jr., the founder of the Wamsutta Mills, an agent for many years, and later from Edward Kilburn.

He was quick to realize his opportunities and to make the most of them, spending all the time possible among the machinery. When he left the Wamsutta Mills it was with a thorough knowledge of the details of the mill industry.

From the Wamsutta Mill he went to Philadelphia, where he was employed for a time in a banker's and broker's office, which gave him an insight into the workings of the Philadelphia Stock Exchange. After six months of this the young man was invited back to New Bedford, where he was offered a post in the banking house of J. A. Beauvais & Co., of New Bedford. Mr. Beauvais had long been engaged in the New Bedford fishing trade and at this time was still managing the affairs of James B. Wood & Co., whaling merchants. One of the young man's tasks was to keep the books of this famous firm. Young Wood's chief was an exceptional man of business, a financier of firm grasp and broad vision, active in banking, whaling and railroad enterprises. With the young man's assistance, a national bank was organized and young Wood was given a practical insight into the methods and principles of banking.

About this time there had been in Fall River some grave breaches of trust by several mill treasurers. Sterling men of New England were being sought for posts of responsibility in this nearby manufacturing center. Otis N. Pierce, president of the Grinnell Mills, was chosen as the treasurer of one of the reorganized Fall River corporations and he bestowed upon William Wood the compliment of selecting him as assistant and paymaster. Mr. Wood served under another eminent manufacturer, Edward L. Anthony, who succeded Mr. Pierce as treasurer of the Border Cities Mills, and Mr. Anthony furthered the ambitions of his young assistant. Mr. Wood passed altogether six busy and successful years with Mr. Pierce and Mr. Anthony and his record was such that a group of observant friends determined to build a cotton mill to be under his individual management.

But this was not to be. One of the greatest textile manufacturing concerns in the country, the Washington Mills, of Lawrence, Mass., was sold at auction, after a series of vicissitudes, to Frederick Ayer, of Lowell, a man of large wealth and business acumen. Mr. Ayer invited Thomas Sampson an experienced manufacturer of Rhode Island, to become agent for the Washington Mills, and Mr. Sampson persuaded his young friend Wood to give up the idea of a cotton mill of his own in favor of the management of the cotton manufacturing department of the business of the Lawrence mill. However, it was decided by the directors of the Washington Mills to devote their activities entirely to worsted goods, and when Mr. Wood began his Lawrence career it was as an assistant to the manager of the company. Here Mr. Wood won a brilliant reputation as a salesman. Though he was still in the early twenties, he was recognized by all who knew him as a master both as a manufacturer and as a merchant.

Here he began to climb rapidly. His salary at first at the Washington Mills was two thousand dollars a year. He was offered successively five thousand dollars and seventy-five hundred dollars by competing concerns, but the Washington Mills gladly met these figures and retained his services. Then came another advance to $10,000. Shortly afterwards he was offered by a large commission house a salary of $25,000 a year, which he declined.

Succeeding Mr. Sampson as manager, Mr. Wood grappled with the problems of the Washington Mills finance. The mills had a very heavy indebtedness, and it was the belief of the trade that such a burden was a fatal handicap to any business. Under Wood's management the Washington Mills became one of the most efficient and profitable industrial concerns in the United States.

When the position of the Washington Mills was absolutely assured, Mr. Wood sought to lead a still broader field of business endeavor. The Gorman-Wilson tariff law of 1894-1897 had seriously handicapped the American woolen industry. And even when this measure was displaced by a more adequately protective national policy, it was still a question whether many mills would survive or be abandoned. Mr. Wood was able, from his point of vantage in the strong Washington Mills to secure control of some of these less fortunate concerns, united them with others that had weathered the storm and formed in 1899 the American Woolen Co., the largest single organization in the wool manufacturing industry of America or the world. Frederick Ayer, Charles Fletcher of Providence, James Phillips, Jr., of Fitchburg, Charles A. Flint and E. D. Juilliard of New York became his associates in this enterprise. Mr. Ayer was made the first President of the American Woolen Co. and Mr. Wood the treasurer. Later Mr. Ayer resigned the presidency and Mr. Wood became the president of the great concern.

The American Woolen Co. now has 59 mills, located in New England. It is a vast growing powerful organization. The total product of its factories is at its maximum $80,000,000 a year. Its capitalization is $100,000,000, divided into $60,000,000 of preferred and $40,000,000 of common stock. This is about one-seventh of the capitalization of the 900 woolen mills in this country that manufacture the outer clothing of the people. The company controls the Assabet Mills, at Maynard, Mass., the largest woolen plant in existence and the immense Wood mills at Lawrence, greatest of all worsted manufacturing establishments.

The American Woolen Co. was incorporated in March, 1899, under the New Jersey laws, absorbing a number of growing companies engaged in the production of woolen goods. On February 15, 1916, the entire property of the company was transferred to the American Woolen Co., incorporated under Massachusetss laws. The company operates and controls the Ayer Mills at Lawrence, Mass.; the National & Providence Worsted Mills at Providence, R. I., and the Woolen & Worsted Mills, Inc., of New York. The latter company owns the Fulton Mills, at Fulton, New York, and the Globe Woolen Mills in Utica, New York. The American Woolen Co. of New York is a selling organization. It is also owned by the American Woolen Co. of Massachusetts. April 1, 1917, there was incorporated the American Woolen Product Co. to carry on a general export business and to act as sales agency for the American Woolen Product Co. in foreign countries. The American Woolen Co.'s mills are all free from bonds or mortgages and its plants cover more than seven hundred acres of land and the mill buildings contain more than 10,000,000 square feet of floor space. The Shawsheen Mills were originally capitalized at $100,000 which has since been increased to $1,000,000.

The enduring memorial to William M. Wood is Shawsheen Village, a quaint, unique New England town, which he planned and built. His conception of it was fostered by a desire to give attractive homes to some of his employes. Yet Mr. Wood did not like the typical straggling mill towns of New England, with their box-like residences that looked as if they had all been moulded from the same huge cookie cutter. He wanted something better than that, so he carefully planned and generously financed his project and as a result Shawsheen Village stands now, the prettiest "homiest" residential town of New England.

Shawsheen Village is just a little distance from Andover, Mass. and was formerly a little hamlet called Frye Village, which was older than Andover itself.

Mr. Wood himself picked this location as a place for developments and his plans were so thorough, so careful, that Shawsheen Village now ranks with Port Sunlight, of England, the world famous example of industrial growth and town planning engineered by Lord Leverhulme.

Building operations and direction of the enterprise were carried on largely by the Homestead Association, Inc., an auxiliary of the American Woolen Co., although some of the buildings were erected by the American Woolen Co. and others by Mr. Wood himself. The architectural detail is consistent, and all the houses have artistic doorways which add a great deal to the homelike atmosphere of the town. The houses cost from $5,000 to $15,000 and the majority of them have been sold to employes on easy payment plans. The prevailing style of architecture is Georgian Colonial, and it is easy to see that here may be found real homes, not just tenements.

The inhabitants are justly proud of their public buildings. Its Post Office is a beautiful structure which is the first thing the tourist sees when rounding the curve coming into the village. It is three stories high, built of brick, and has a large clock tower. The round vestibule is finished in gumwood and awnings shade the artistic, small-paned windows. Mr. Wood built this edifice and then made an attractive enough offer to the government to get the sub-station there. The back part of the building is occupied by a very up-to-date market, which handles among other things, the large variety of farm stuffs from the model farm of Shawsheen.

The drugstore is operated on the department system, and has the most efficient and modern equipment for the manufacture and dispensing of ice-cream sodas, and soft drinks. The interior is furnished in black and gold, with handsome Windsor chairs and black topped tables. Black and white Ionic pillars give the store an added atmosphere of grandeur. In front there is a deep plaza with canopied French tables in gay colors, and carefully selected shrubbery.

The railroad station is consistent with the architecture of the rest of the town and is the last thing in public convenience of that sort.

Mr. Wood and his colleagues were so efficient that the town sprang up practically overnight. Now it gives one the impression of having endured for years, but less than half a decade ago the few inhabitants of Frye Village were going peaceably about their daily tasks, little thinking of the wonderful growth and changes to come.

The hotel shows what can be done with an old mansion, and money. Strictly speaking it is not a hotel. The name "Inn" would convey more exactly the picture of this beautiful, quaint, motor resort. Shawsheen Manor is famous throughout New England for its steak and chicken dinners. It is a great favorite among college boys and girls, parties of whom motor there continually. It is independent, and proud of the fact. Mr. Wood saw the value of having independent enterprises in his model village rather than the supervised stores and building associations generally found in industrial towns—for such cooperative institutions cannot help but feel that they are a somewhat insignificant cog in a massive machine.

Shawsheen Manor was reconstructed from the Famous Smith Mansion on the Reading turnpike. It has fourteen bedrooms all with different color schemes, a handsome reception room, a library, and furnishings that are well in harmony with the beautiful simplicity of the place.

Mr. Wood knew what he wanted, and knew when he wanted it. He was not so much concerned with the method of causing his vision to materialize as he was concerned with the actual materialization. Mammoth trees were uprooted and transplanted. Houses were moved intact. It was a huge undertaking, but it was carried to a triumphant end with undeniable success.

Mr. Wood saw to it that the little ones were not forgotten. He had constructed a large swimming pool that is fed by a spring and beautifully situated back of the Post Office. It has a cement sloping bottom that allows a maximum depth of eight feet, and across the entire pond is stretched a heavy rope, to assist in any rescue work that might be necessary. Bath houses are provided and the younger generation find great pleasure there in the hot summer months.

William M. Wood is famous as head of the American Woolen Co., yet many business men with plans for the comfort and happiness of their employees look upon him, not as an executive, but as a genius in the art of home building. Shawsheen Manor might well be called his gift to humanity, for it is a beautiful spot, and to quote Keats, "A thing of beauty is a joy forever." And Shawsheen is unquestionably a monument to William M. Wood that will endure.

Mr. Wood has declined many business honors and directorships in great banks and other corporations because of the demands of his own immediate business. His present official posts are president and director of the American Woolen Co.; president and director of the National & Providence Worsted Mills, Providence, R. I.; president and director of the Ayer Mills, Lawrence, Mass.; vice-president of the Home Market Club; vice-president of the National Association of Wool Manufacturers, Boston; president and director of the Southern Illinois Coal & Coke Co., Chicago, Ill.; director of the Merchant's National Bank, New Bedford, Mass.; director of the Pierce Manufacturing Co., and also of Pierce Bros., Ltd., New Bedford; director of the Rhode Island Insurance Co., Providence; director of the Washington Mills; director of the Nyanza Mills, and trustee of the Lowell Textile School.

Mr. Wood is a gentleman of striking personality. He looks to be what he is, a man of affairs. He is a quick and active person physically and is mentally crisp in words and prompt in decision and execution. He commands the devotion of a host of personal and business friends. Except when engaged in formal conference with some weighty executive of affairs, he is always accessible to his subordinates or others who have actual business with him. He is known far and wide as a most considerate and generous employer. It is known that he gives a great deal of personal thought to the model houses for many of the company's operatives and to the equipment of the mill buildings for the health and comfort of the working people.

J. OGDEN ARMOUR

One may gain something of the power J. Ogden Armour wields in the statement that the forces he controls handle more grain than any other grain concern in the world, do the second largest leather business in the world, and rank first as manufacturers of fertilizer.

Armour is the largest individual employer of labor in the United States—that fact alone would rank him as an industrial giant.

J. OGDEN ARMOUR

J. OGDEN ARMOUR, son of Philip D. Armour, is a chip off the old block. Since "J. O.," as his associates call him, succeeded his father, the Armour Grain Co. has grown until it now handles more grain than any other grain concern on the face of the earth. Besides this, Armour has the second largest leather business in the world. He ranks among the foremost manufacturers of fertilizers. He controls more refrigerator and other special cars than any other railroad system in the country. Whereas the business of Armour & Co. did a volume of $100,000,000 a year twenty years ago when Philip D. Armour died, now it does $500,000,000 and J. Ogden Armour is the largest individual employer of workers in the United States, having at his beck and call some 40,000 of them. Armour & Co. with no stockholders, is purely a family concern.

Armour & Co. began business in 1867. It originated, however, four years earlier when Philip D. Armour, born in Stockbridge, New York, went to California to make his fortune and had failed. Having got together a few thousand dollars, he became the junior partner in a small Milwaukee packing concern known as Plankington & Layton, which changed its name to Plankington and Armour. This concern cured and packed pork. It handled a little fresh meat, but did scarcely more than a local business, and that only in winter. It did its killing and curing in the winter and sold its products in the summer. This was before the days of refrigeration. "P. D." came on to Chicago and started Armour & Co. as a subsidiary to Plankington and Armour, but Armour, being an exceedingly shrewd buyer and trader, soon made his little branch bigger than the parent company.

In 1868 they had a capital investment of $160,000. The assets of the concern today exceed a half billion dollars, which is due to the policy of always turning back into the corporation more of the profits than are taken out. J. Ogden Armour recently testified that since 1919, 87.90% of the total earnings had been re-invested in the business and only 12.10% had been taken out for the private use of the owners.

In 1869, Simeon B. Armour, a brother of P. D., began to kill cattle in Kansas City under Plankington & Armour. This firm largely pickled its products. It later became the Armour Packing Co. and was merged with Armour & Co. in 1900. Mr. J. Ogden Armour thus sketches the progress of the business, during its next period:

"The packing business was still largely a pickling business up to this time, despite the fact that the refrigerator car had been invented in 1868 and given a tryout in 1869, when dressed beef was shipped to Boston during the winter months, following the first consolidation of a through-line railway from Chicago to the Atlantic Coast.

"In 1872 Armour & Co. moved their Chicago plant into the Union Stock Yards, which had grown rapidly after their establishment in 1865, and in 1874 my father built the first large chill room in the world. Armour & Co. had grown to such proportions by 1875 that my father moved to Chicago to take personal charge of the business. With him came Michael Cudahy, superintendent of the Plankington & Armour plant at Milwaukee, to act as superintendent of the Chicago plant. (Mr. Cudahy became a partner in Armour & Co. in 1877 and remained in the firm until 1890, when he secured possession of a plant at Omaha and founded and began operations under the name of Cudahy Packing Co.)

"Several noteworthy events in the industry took place at this time. Probably the most important was the utilization by the Armour Packing Co. of the newly invented refrigerator cars for the systematic marketing of fresh beef. My father saw very clearly that the refrigerator car was the 'open sesame' to a business of tremendous proportions, that it linked the meat-producing sections of the great West to the more densely populated and heavy meat-consuming centers in the East.

"Up to this time there was no such thing as an adequate fresh beef supply in the East, and such Western beef as got there, went alive in stock cars. Moving cattle from the prairies, where production costs were low, to the Eastern centers of consumption where grazing lands did not exist, entailed transportation which was both poor and costly. A one-thousand pound steer so transported represented 550 pounds of dressed meat and 450 pounds of what was then practically all waste, but which figured in the transportation charges for all that. The refrigerator car offered a way to get beef from the West to the East even in summer time, and Armour & Co. set out to take advantage of that fact.

"A snag was encountered at the very outset. The railroads did not take kindly to the suggestion that they build refrigerator cars for the transportation of fresh meat. Whether it was because they feared a loss of revenue as a result of a diminution of the traffic in live animals between the ranges of the West and the cities of the East, or whether it was merely reticence about trying out a new-fangled idea, at any rate they refused to add refrigerator cars to their equipment. No amount of reasoning or pleading moved them and eventually Armour & Co. were compelled to build their own fleet of refrigerator cars. Business expanded rapidly with the invention of the refrigerator car, due to the novel opportunity of eating fresh meat in what was then considered the 'off season'."

The refrigerator car marks the beginning of the packing business as we know it to-day, because, were it not for the refrigeration, the big packer could not exist. Before this time the main business of the larger packers was to cure meat and pack it for transportation. They could not ship fresh meat to any distance. They had to ship the Western cattle to the East alive, which is a very expensive process. The refrigerator car changed all that. It permitted the fattening of cattle where the corn was cheapest and then sending on to the market only the edible portion. The consumer had to pay the freight only on what he ate and not on what was thrown away. The Western packers could thus deliver dressed beef at a price lower than the local slaughterers. This was the beginning.

Chicago is the world's greatest grain, corn, lumber and cattle market. The city attracts immigrants from everywhere. All flourish in native luxuriance. Sometimes they are compelled to bow to the power of the law by military force when civil forces are exhausted. Every place of industry seems to thrive there without much hindrance, and thus this wonderful city secured its rapid growth and completely cosmopolitan character. The people, while proud of their amazing progress, seem generally so engrossed in pushing business enterprises and piling up fortunes that they have little time to think about much else.

The broad expanse of prairie was low, level and treeless originally, but abundant trees have since been planted and those interested in art have made little lakes and miniature hills, beautiful flower gardens and abundant shrubbery, thus producing pleasure grounds of rare attraction. The adornment of the city has been carefully planned with a magnificent series of parks and boulevards encircling it.

Chicago River, with its entrance protected by a widespreading breakwater, is the harbor of the city, and, with its railways, carries the trade. Tunnels conduct various streets under it and a multitude of bridges go over it, all of them opening to let vessels pass. They are mostly swinging bridges, but some are ingenious constructions, which roll and lift and fold, and in various unusual ways open the channels for shipping. Huge elevators line the river banks, with vessels alongside, into which streams of grain are poured, while multitudes move in and out, under, and around them, bringing the supply from the farms to the storage bins.

The elevators of Chicago represent its traffic in grain, containing usually a large proportion of what is known as the "visible supply." In a like manner the vast lumber yards along the Chicago River often store up an enormous product of lumber. This forest growth covers much of Michigan, Wisconsin, and Minnesota, and spreads across the Canadian border. The next great branch of traffic is represented by the Union Stock Yards in the southwestern suburbs. The Union Stock Yards constitute a complete town, known as "Packing Town," with its own banks, hotels, Board of Trade, postoffice, town hall, newspaper and special fire department. The extensive enclosure is entered by a modest gray sandstone turreted gateway, surmounted by a carved bull's head, symbolic of its usage. The Horse Market is a large pavilion, seat-ing many thousand people. From the stock yards of "Packing Town" with its enormous packing houses, are shipped the meat supplies that go all over the world, the product being carried out in long trains of canned goods and refrigerator cars, the most ingenious methods of "cold storage" being invented for and used in this widely extended industry.

The active traffic of the grain and provision trade of Chicago is conducted in the building of the Board of Trade, a tall and imposing structure at the head of LaSalle Street, which makes a fitting close to the view along that grand highway. This is one of the most elaborate architectural structures of the city, and its surmounting tower rises 322 feet from the ground. The fame of this grand speculative arena is worldwide, and the animated, and at times most exciting, business done within marks the nervous beating of the pulse of this metropolis of food products. Chicago Board of Trade has been the scene of some of the wildest speculative excitements in the country as its shouting and almost frenzied groups of traders in the "pits" may make or break a "corner" and here in fitful fever concentrates the business energy of the great metropolis of the Lakes.

"Packing Town" will in a year handle millions of hogs, cattle and sheep and a hundred thousand horses. Over two-thirds of the hogs and cattle killed in the yards are sent away in the form of meats. The yards cover several hundred acres and with the packing houses employ 50,000 or 60,000 men and have 20 miles of water troughs and 25 miles of feeding troughs and are served with 250 miles of railway tracks. A hog is a potential factor in American economy, being regarded as the most compact form in which the corn crop of the country can be transferred to market. The corn on the farm is fed to the hogs, and the animal is sent to Chicago.

It is at this marketplace that the big packers began to grow bigger. They became interested in the problems of the by-products market. The expression "At Packing Town, there is nothing gets away but the squeal" has become a bromide. The packers had on their hands thousands of tons of waste which was at one time sold for but a trifling sum. Out of this waste has literally grown the packing business, so that now the profit is in the sale of materials made out of the by-products instead of in the sale of the meat alone.

First, they found a market for beef suet by beginning the manufacture of oleomargarine. They found ways of using blood, bones, and the meat scrap. They went into the glue business and later into making pepsin and beef extract. They put all kinds of meat products in tinned form and so on until today not a single scrap of any kind of an animal that is killed in one of the larger packing houses goes to waste.

This has led into other lines, for the by-products as thus converted had to be sold, which meant the building up of sales organizations. These sales organizations had to be kept busy, which meant the taking on of complete lines. For instance, to market the beef juice necessitated a sales organization that visited drug stores. These salesmen found that not only could they sell more than beef juice, but also that they could better sell this beef juice if they could present a fairly full line of soda-fountain requisites which led to the manufacture of grape juice, the purchase of the Coco-Cola plant and a number of other lines, unrelative to meats, yet related to the salesmen's activities.

Part of the refuse went into the manufacture of fertilizer; The sale agents for fertilizer found that it was necessary also for them to be able to sell potash. The manufacture of soap was a logical method of using fats. Soap requires perfume; a soap salesman can just as well sell perfume; so perfume was taken up. The company established branch offices with refrigerators all over the country with supply trucks to local dealers. The meat salesmen were often asked to order various grocery products for the convenience of the local men and have them transported on the company trucks. This led to taking on, gradually, lines of grains and groceries and finally into almost every kind of food product, some of which the company manufactured and in some of which they acted as jobbers.

It is this development into lines which are not at all by-products of the packing industry, but which aim to utilize the vacant time of the salesman and the vacant space encountered in transportation, that has been objected to by the Federal Trade Commission. The packers are now engaged in separating themselves from a certain number of these sidelines, although from the standpoint of service to the consumer it is undoubtedly more economical for him to pay only the charges of a part-time instead of a full-time salesman, and to have the advantage of greater lot shipments.

There is a whole history in itself in the logical outgrowth of meat packing into a general food supply organization. This history of each of the packers has followed more or less along the lines sketched. Some have gone farther in one direction and some farther in another. They are all, as might be expected, sellers of hides and some of them are tanners and sell leather. Wilson & Co. also make and sell sporting goods, because so much animal product, particularly gut, leather and hair, is used in making certain articles for sporting purposes. The perfection of their system of distribution led many of them into the fishing industry, and so on through almost every kind of commodity, for when one conscientiously endeavors to use not only every bit of material that comes into his place, but every bit of the time of salesmen and of the capacity for distribution, there begins a chain of activities that is endless.

The five big packing companies, which extend their business throughout the world, are in competition and have no thought of combining into a monopoly, either secretly or openly. They know that as long as grass grows, meat can not be monopolized. They do not fight each other, for no one of them is strong enough to win such a fight. And if one could win, one would not have anything when he had won. The business of the country is so large that each of them is pressed to the utmost to care for what he had and to find money to extend for the new business offered.

The chief interest in business life is not monopoly, but the making of a profit on the business that represents their turn-overs. The average profit per dollar of produce sold is only about 83/100 of a cent. This is a lower margin per dollar than any other successful business allows and on such a margin it is possible to make a good average profit annually, only by the closest possible attention to minor details and by marketing large quantities of produce.

P. D. Armour used to say: "I make mistakes, but I do not respond to encores." In that perfect willingness to admit errors "J. O." follows his father. In most other respects he is entirely unlike him. "P. D." liked to pose as a rich man; he liked the feeling of money, and he liked to give it away. He had one hundred one-dollar bills put on his desk each morning and before nightfall he had usually managed one by one to get rid of them. There is nothing of that in J. Ogden Armour. He detests being rich. In fact it is questionable that he likes being in business at all, for his nature is not such that he can take a dilettante interest in anything. He considers managing that business his job—that he had no more choice in taking the head of Armour & Co. than the Prince of Wales would have in becoming king. Such being his job, he has spent all his life, first, in fitting himself to do it well and, then, in doing it. He had only a couple of years in Yale, and at nineteen went in the offices as a billing clerk.

You can find J. Ogden Armour almost any day in the downtown offices of Armour & Co. on LaSalle Street in Chicago. You can not only find him, but also if you can present a moderately coherent reason for seeing him, you can see him. If you do see him, you will not discover an executive such as is pictured in modern fiction, the cold, unapproachable master of other people's destinies, his desk cleared for action, his office creating an atmosphere of efficiency rather than comfort.

Instead, you will find that Mr. Armour's office is furnished in a very "homey" manner, in heavy leather, and that his desk is covered with a great number of papers, and that there is a general air about the room as though the man lived there and did not merely visit. He does live there. Unlike some rich men's sons, J. Ogden Armour is a worker. For many years he was in the packing house by eight o'clock in the morning. The Armour offices start the day's business at the unusual hour of seven. He stays through the entire afternoon. He maintains that tradition of his father in knowing everything that is going on and checking up on all results. He learned the business in the stern school of experience,—his father saw to that. As the son says in his book, "The Packer and People," "the slaughtering, dressing and packing of swine, cattle and sheep is no game of ping-pong."

When he became the directing head, he used to receive at his home, by seven o'clock every morning, detailed reports of the live-stock receipts at all the principal centers in the country and, after carefully analyzing the whole national and international situation, decided upon the general buying program for the day. He does not attempt to do everything himself, but gives the wisest and fullest responsibility to all of the managers and continues giving it increasingly just so long as they deserve it. He says:

"To get the right kind of men we begin early. We are more particular about the hiring of office boys than about any other thing connected with Armour & Co., for the office boys of today will become our department managers tomorrow. We practically never go outside for a high-priced man. Just as the fellow who started with the Pennsylvania Railroad as a brakeman may one day become president, so young men who start with us at the bottom can hope to rise to the top."

His father, having an antipathy to molly-coddles, put "J. O." through all of the hardest tasks in the establishment, trying to find out whether he could make the young man quit on the job. He found he could not and nineteen years after he had entered the business, Armour, although he was not at that time very young, became, on the death of his father, the head of the organization.

J. Ogden Armour was born in 1863. He is now 59 years old. He says of himself: "I thought I was the most fortunate young man in the world when I inherited a huge business and a good name, but it was not long before I changed my views, for I had nothing but trouble, especially when the United States Government brought all sorts of grave charges against me and other packers. I felt that I had to run Armour & Co. honestly and fairly—certainly I did not need to do dishonest things to make money. The indictments, nevertheless, caused me terrible humiliation and unhappiness. I had been proud of my father's name and record, and tried sincerely to maintain both unsoiled. The courts gave us a clean bill of health, but not before the American packing industry had been so vilified that country after country shut its doors against American-made products."

Mr. Armour has served in every department, both at the stock-yards and in the office. Before he had finished his full course at Yale Sheffield Scientific School he was called home by his father to get into harness. With fewer vacations than the average clerk enjoys, he has been in harness ever since.

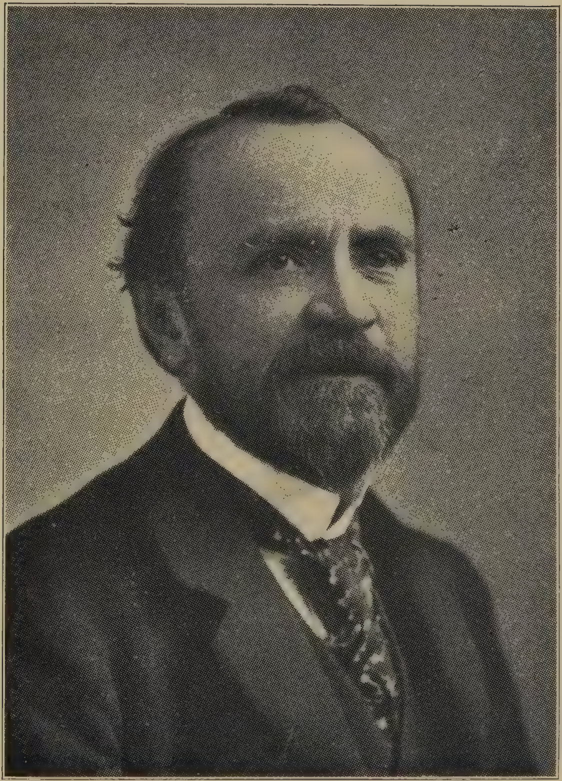
The home life of J. Ogden Armour is charming. Society does not appeal to him. He divides his time between his business and his home, the latter presided over by his wife, formerly Miss Lolita Sheldon. He is intensely fond of his only child, a daughter who married a few months ago. His daughter, it may be recalled, was a cripple until Mr. Armour brought over the famous Dr. Lorenz, of Vienna, who operated upon her successfully and his services were placed by Mr. Armour at the disposal of other children in the country similarly inflicted.

Armour & Co. today, under the administration of J. Ogden Armour, has 500 branches located in different countries in the world. It has the largest grain company in the world, constructing in South Chicago an elevator holding 10,000,000 bushels, bringing the company's total elevator capacity up to 25,000,000 bushels.

The company has expended $3,500,000 on foreign plants in Argentina. It has offices and permanent representatives in 40 foreign cities and countries. Its foreign business alone now mounts up to $100,000,000. It pays cash annually to American farmers of about $300,000,000 for live-stock. The company today handles no fewer than 3,000 distinct products, showing the great diversity of the business. During one month 14,000 visitors have gone through the Armour Packing Co. plant in Chicago, where every single operation in the killing of live-stock and the preparation of the products is wide open for inspection every day. The profits on this product total less than three cents on the dollar on the total volume of business done.

The great technical institution founded by P. D. Armour is the famous Armour Institute of Technology, which annually turns out hundreds of graduates so skillful in their training that corporations and institutions engage them the moment they are ready to start work. The original Armour spent several millions on this institution and several years ago the present Mr. Armour and his mother gave it an endowment fund of $1,500,000, while still later Mr. Armour gave another $500,000. The running of this institution costs Mr. Armour several thousand dollars a week. The institute came into being through a sermon preached in 1892 by the illustrious divine and humanitarian, the late Dr. F. W. Gunsaulus, on "What I would do if I had $1,000,000." The Armours gave him not $1,000,000, but several and he expended it in a work which remains as a monument to Dr. Gunsaulus and the Armour family.

During the World War Mr. Armour promptly urged that all dealings in foodstuffs should be taken under control by the Government. He convincingly demonstrated that it is possible to be both a keen business man and a patriot.



HENRY PHIPPS

Henry Phipps was a shrewd financier with a passion for economy. He grew up with Andrew Carnegie and with him climbed to the heights of the steel industry. The biography of Phipps is largely the history of the Carnegie enterprises.

Personally he was a nervous, alert, brainy giant of small stature. To him and his careful planning and foresight, is due much credit for the rapid growth of the steel projects and the massive wealth of those connected with it.

HENRY PHIPPS

HENRY PHIPPS, who figured with Carnegie and Frick as one of the heads of the Carnegie combination which sold out to the United States Steel Corporation, was born in Philadelphia, September 27, 1839. He worked in stores in Pittsburg from 1852 to 1856 and early revealed himself to those around him as a master of detail. He first decided to work in a store to get experience in selling goods and to learn how to do things. He resolved to get behind the counter, no matter how small the pay, so we find the master steel king of many millions making his start in the world in this humble occupation. He was an engineer of economics. Those around him found that he had a microscopic eye and no waste or extravagance escaped his notice. Beginning as a jeweler's errand boy, he rose to be the bookkeeper of a spike mill concern. Phipps was faithful; he was plodding and he was energetic. He was not fond of publicity. The task in hand, whatever it happened to be, monopolized his whole attention. Apparently, as he rummaged about on the iron works junk heap, or dickering to get half a dollar taken off a coal bill, there were not visions in his mind of a golden future with the stately Beaufort Castle in the background. While Carnegie, his overshadowing partner, was using all his railroad influence and all his diplomacy to get the highest possible prices for their goods, Phipps was pushing the cost-line down to a level it had never reached before. In such a quiet, self-obliterating way did he carry on his work so that few outside of his partners knew his value to the company.

He was office boy and bookkeeper for Dilwell & Bidwell, spike manufacturers, in the years from 1856 to 1861. In this position he showed himself as possessing the requisite capacity for detail and business management. In 1861 he became a partner in Bidwell & Phipps, agents for the Du

Pont Powder Co. He also became a partner in a small iron mill, the firm name of which was Kloman & Phipps. And from that he became associated with Thomas M. and Andrew Carnegie in iron and steel manufacture, building up a large fortune. He had, next to Carnegie, the largest interest in the Carnegie Steel Corporation. Associated with the Carnegies, Phipps became the financier of the group. None could face an insistent banker as well as he.

"What we used to admire in young Phipps was the skilful way in which he could keep a check in the air for two or three days," said the president of one of the Pittsburg banks of that time.

The old black mare, Gypsy, which he drove on his daily rounds in his early Pittsburg days became so familiar with her duties that she would criss-cross from bank to bank of her own accord. Afterward, when prosperity came to the partners, it was said to be impossible to drive Gypsy in a straight line through the banking section of Pittsburg.

For years when the Kloman-Miller-Carnegie-Phipps Co. was too poor to hire a bookkeeper, young Phipps would trudge three miles every week-day evening, from the spike mill to the iron works, post the books and trudge back home to Slabtown, Alleghany City. There were no street cars in 1865, and if there had been, the thrifty Phipps would probably have regarded ten cents as too high a price to pay for avoiding a mere six-mile walk along a canal-bank.

With the exception of Kloman, the partners in this firm had all been boyhood friends. Miller, Phipps and the two Carnegie boys had been boy workers together in Alleghany. Together they had gone to borrow books from the kindly Colonel Anderson, and together they had discussed the campaigns of George Washington and the heroes of Sir Walter Scott. They had sat side by side in the same Swedenborgian Sunday-school and rehearsed together in the same singing class. Whenever they had a holiday, which was seldom, they went on long rambles together upon the cliffs or along the river's bank.

They appeared to have been far superior to ordinary boys. There was some method even in their play. Andrew

Carnegie's greater assertiveness made him the natural leader of the little group, although in several special boyish attainments he was outdone by the others. At first Miller climbed up more rapidly than the rest, and gave all three their start in the iron business. He rose to be purchasing agent of the Forth Wayne Railroad; in this way he became acquainted with Kloman, and arranged partnerships for his young chums. To Phipps he loaned $1,600 to buy a share from Kloman, and afterwards introduced the Carnegies, first Tom and then Andrew. The average age of the four partners when they began their iron-making careers in 1865, was only 27; but for more than a dozen years they had been partners in play and shared the same ambitions.

All the partners in the new firm of Kloman-Miller-Carnegie-Phipps were active. Andrew Carnegie, Scott and Stuart drummed up orders. McCandless and Kloman furnished the prestige and business experience. Kloman in blue blouse and overalls looked after the men and machinery. Thomas Shinn was general manager and soon had the business so well organized that he could account for every quart of oil and pound of nails. Henry Phipps was in and out of every department, suggesting improvements and economy. Thomas Carnegie was a sort of emergency man, minimizing friction at all points.

A friend of the partners said at the time in describing the new firm:

"Shinn bossed the show; McCandless lent it dignity and standing; Phipps took in the pennies at the gate and kept the payroll down; Tom Carnegie kept everybody in a good humor; and Andy looked after the advertising and drove the band wagon."

This was the firm of Carnegie, McCandless & Co., which was organized with a capital of $700,000. Andrew Carnegie put into this all his brokerage profits he had received from Colonel Scott in placing bonds for the Pennsylvania Railroad Co. abroad. He had put in $25,000 besides. Kloman, father-in-law of Thomas Carnegie, had subscribed $100,000. Kloman, Phipps, McCandless, Shinn, Scott, Stuart and Thomas Carnegie put in $50,000 apiece. Shinn came into the new concern as a friend of McCandless and Scott and Stuart were neighbors of Thomas Carnegie.

Carnegie and Kloman had picked out a tract 12 miles from Pittsburg containing more than 12 acres which was notable as the spot on which General Braddock was defeated by the French and Indians in 1775 and on this the Edgar Thomson Steel Works was launched upon its victorious career. The partners had tactfully named the works after the influential president of the Pennsylvania Railroad and this little act of foresight helped to fill the cash drawer.

Carnegie realized to the full commercial value of friendship. While his competitors buried themselves in dingy shops and offices and allowed business cares to worry them into nervous prostration, Carnegie placed himself where he could survey the whole field and lay more ambitious plans than the old-fashioned steel-makers.

At this time there were only seven partners. Four had died or been bought out. Captain Bill Jones was in charge of the Edgar Thomson Steel Works. The Carnegie Co. then began to take shape as the most effective millionaire-making machine the world has ever seen. Carnegie predicted in 1876 that the company would make 40% next year. His partners smiled, but shook their heads. When the next year was ended, the last dollar counted, they found that their clear profits was nearly 42%, which was paid to them partly in cash. When the good news was announced, Carnegie made a second prophecy. He predicted that the next year they would reduce the cost of steel rails to $38.00 and would get $42.50 a ton for them. This prophecy was also fulfilled. The cost of the rails was reduced to below $38 and the average price received was exactly $42.50.

Andrew Carnegie had increased his holdings from one-third to more than one-half of the entire concern. In 1881 he found himself, after only six years of steel-making, the biggest man in the business. His capital had increased twelve fold in six years. His quarter of a million had become nearly three millions. And Phipps was following in his footsteps.

In 1881 the partners reorganized under the name of Carnegie Brothers & Co. with a capital of $5,000,000. Their individual holdings were as follows: Andrew Carnegie, $2,737,977.95; Thomas M. Carnegie, $878,096.58; Henry Phipps, $878,096.58; David A. Stuart, $175,318.78; John Scott, $175,318.75; Gardiner McCandless, $105,191.33; and John W. Vandervort, $50,000.

This stock list shows that in the Carnegie Co. every item, however large, was figured out to the last cent. The partners had not allowed their inflow of gold to make them forget the silver and the nickels.

From 1880 onward the company never cleared less than $1,000,000 a year. This inside financial history was then unknown to the public. The partners had not quarreled and become carelessly talkative, or this story of their millions might never have been told.

Roughly speaking, this was a total profit of $16,000,000 in eight years on an original investment of $5,000,000, an average of 40% a year. The bulk of the money went to Andrew Carnegie, as the numbers of the partners dwindled from seven to four. Mr. Carnegie's personal wealth at this time was about $15,000,000.

Mr. Carnegie had worked with 13 partners prior to the incoming of Mr. Frick. Finally but one of the thirteen survived — Henry Phipps. The members of the firm decreased with fatal regularity until none remained except "Andy" and "Harry," the son of the weaver and the son of the cobbler, neighbors in Barefoot Square, Slabtown, Alleghany City, a short 30 years before.

Henry Phipps remained with Carnegie all through the turbulent history of the Carnegie company. His climb from nothing to $50,000,000 is well illustrated in a story told by Frick, There was an old New England Yankee who lived in the village of West Overton, who owned the biggest chicken farm in the county. One day Frick asked him how he came to launch out in the chicken business.

"Well," said the old man, "it happened this way. When I was a young fellow I was out of work for a while. So I went over to a neighbor's and borrowed a hen and a dozen fresh eggs. I set the hen on the eggs, and every one of them hatched. Then I waited until the hen had laid a dozen eggs. By this plan I was able to pay back what I borrowed and have a dozen little chickens left for myself. I didn't invest a cent. All that my neighbor lost was the temporary use of the hatful of eggs that he never missed; and this big chicken farm is the result."

Phippis had entered the iron business without the investment of a dollar of his own money. The $800 which admitted him as a partner into the Kloman firm had been borrowed from Thomas N. Miller. When he was a youth of 17 Harry Phipps had spent 25 cents in advertising for a better job. An answer from a firm of iron dealers and decided his career. But even this 25 cents had been borrowed from his brother, so that it may literally be said that he entered the pathway to $50,000,000 without the payment of a penny as entrance fee.

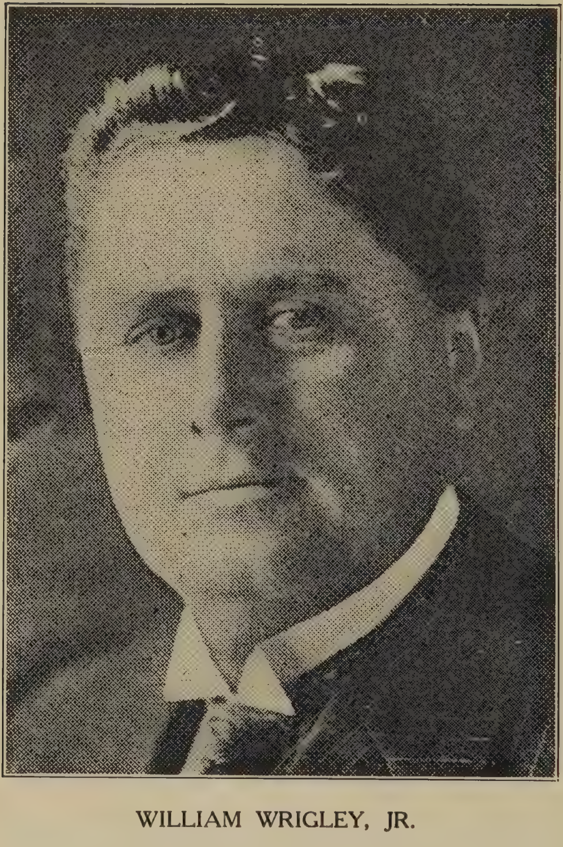
Physically, Henry Phipps was even smaller than Andrew Carnegie. He accumulated almost as many millions as he had inches. Apparently Carnegie had a preference for small men. In manner, Phipps was soft-voiced, nervous and as alert as a chamois. In mind he was cautious, shrewd, plodding and inquisitive. Broken down by overwork, he had been forced into congenial idleness in 1888, but he never allowed his grasp on the company to relax. In 1901 he was found to own 11% of the stock of the Carnegie company, nearly one-fifth as much as Carnegie and nearly twice as much as Frick.

Mr. Phipp married Miss Annie Childs Shoffer, of Pittsburg. They had three sons and two daughters. On his retirement, in 1888, he showed no desire to escape the smoke and grime of Pittsburg, but built a palatial home in Alleghany, which contained many original features. In the dining room were five large stained-glass windows, gorgeously colored and each with a painted likeness of one of his children. As the children grew older and developed social ambitions Mr. Phipps reluctantly left the scene of his childhood and his labors and divided his time between New York and the Scottish Highlands where he rented Beaufort Castle from Lord Lovet. His daughters married — Miss Helen Phipps to Bradley Martin, Jr., and Miss Amy Phipps to the Honorable Frederick Guest, second son of Lord Wimborne. So the long steel ladders built in Pittsburg reached in one generation from Barefoot Square, Slabtown, to Beaufort and Skibo Castles — from the cottages of immigrant workmen to some of the greatest ancestral palaces of Europe.

In 1899 came the great quarrel in the Carnegie Steel Co. Carnegie collided with Frick. The tragedy of it was the separation of Carnegie and Phipps, who had been the closest friends for over 50 years.

Phipps was an indispensable factor in the early history of the Carnegie enterprises.

His name will forever be identified with the great steel industry for his passion for economy was a perfect complement to the genius of Carnegie.



WILLIAM WRIGLEY, JR.

William Wrigley, Jr., believes that it pays to advertise, and he believes that his success is due to advertising. He tried several advertising campaigns before he began to get adequate returns—but now his fortune runs into big figures.

Wrigley is spending millions to improve Santa Catalina Island. He has great faith in the future of Southern California. He takes care of himself physically, and is expecting still greater expansion of his business at home and abroad. He is a true type of an aggressive American.

WILLIAM WRIGLEY, JR.

WILLIAM WRIGLEY, JR., was born in Philadelphia. He was the oldest of nine children. His father was a soap manufacturer. He was born strong and lusty, as healthy a boy as ever existed, and he literally bubbled over with energy and enthusiasm. This was the birthright of the boy who was to become the chewing gum king and one of our most successful men. His tremendous energy and restless disposition when he was young got him into trouble, and he had great difficulty getting an education.

His love of mischief predominated. He was not really bad; he was so full of animal spirits he couldn't help it. Time and again some youthful prank led his teacher to expel him from school, and it was hard work for his father to get him reinstated. Today the energy shown in some of these very traits, that made William so hard to discipline, became the basis of his stupendous success.

When he was about ten years old he ran away from home to New York. He did not know what he expected to do in the great city and he probably had no idea of making a fortune. The dream of money-making, beyond getting a living, was all that occupied his attention at that time. When he got off the train and crossed the river on the ferry-boat and found himself close to Newspaper Row and Wall Street, he had less than a dollar, and nowhere to sleep when night came.

He decided he could get a start selling newspapers. So as a newsboy he began with a will. This was the best thing that appeared to him at that time in order to get an immediate income. He invested his whole capital in newspapers and was soon seen around the vicinity of Newspaper Row with bundles of them. He was in business for himself and was making a living amidst scenes of excitement and danger. And he would sleep in all sorts of odd places, in doorways, under wagons, but usually in the streets, with his cap and bundle of papers for a pillow.

It did not take him long, however, to tire of a newsboy's life and then he turned to running errands. He would carry heavy packages or valises for strangers in the city. He got work on more than one ship, but only for a day or so at a time. The water-front proved a great attraction for the boy.

Suddenly he decided to go back home. When he arrived there he was promptly put back in school. And there he pursued the even tenor of his way for a while when a sudden freak of fancy, involving the smashing of a whole pie on the wall of the school building, led to his final expulsion from the institution.

His father decided that there would be no more schooling for his boy. He went to work in the soap factory of his father, for $1.50 a week. It was a hard job. It consisted of stirring pots full of soap with a paddle. It took strength and Wrigley after a lot of this work gained much muscle, becoming very husky for his age and able to stand much fatigue. He wanted to become a salesman for his father.

But his father answered him: "Why you are only thirteen and still in knickerbockers."

"But I am big for my age," answered the boy.

He had his way, and, all fired up with energy and enthusiasm, he boarded a train and made post haste for the first dealer. He had determined to sell him. And sell him he did after hours of argument. This was the start of his successful career as a salesman. After that the boy turned in a steady stream of orders.

He was so good-natured and took everything with such good humor that people felt a liking for the young fellow. He began to pick out hard propositions. These were the dealers that the average, easy-going drummer avoided, as being too difficult.

He was running his own wagon and selling soap from it. He was making more money for himself than he had ever dreamed of making. It did not make any difference to him how roughly he was turned down, for he had a way of handling the crankiest of dealers — of turning them into friends. He was always profuse in his thanks, even when he didn't get an order. He was invariably polite and affable to them. He was doing remarkably well when he got the gold mining fever and started for Colorado.

However, he did not succeed in getting any nearer Colorado than Kansas City. His ticket was blown out of the train window and the conductor made him and his partner leave the train. There he sold rubber stamps for a local concern, as he had not money enough to get home. In this he was successful also, and after making several hundred dollars he went back home loaded down with presents. He went back on the road selling soap at $10 a week.

Then he decided to open for his father a sales office in Chicago. All he had towards this undertaking was $32. But he secured desk room on a street centrally located and waited for business to come.

From difficulties come ideas. William Wrigley found the obstacle and it gave him the idea. He found dealers were making too small a margin of profit on Wrigley's soap, which they sold for 5 cents a cake. So he raised the price to a dime, and gave the dealer, as a premium, an umbrella with every box. This scheme was a winner and was the starting point of the premium system that he ultimately developed as has no other man in the world.

Next he added baking powder to his soap line, giving cook-books for premiums. Before long he was distributing 50,000 of them a week. Then he tried another scheme which proved a failure, for he placed some goods which were afterwards found to be worthless and on which he had to return the money.

Then he offered chewing-gum as a premium with his baking powder, buying the gum in large quantities from manufacturers. This scheme proved the most successful of all and turned his thoughts to manufacturing gum himself. He saw that there was literally "millions" in it.

His great problem was how to make the dealer handle his brand of chewing gum and to get him to display and push it. But he solved it and soon was spending hundreds of thousands of dollars in advertising — and making millions in return. Today he is among the wealthiest men in the country — but he is still advertising — and still selling gum.

To his premium list he added coffee grinders, cash registers, lanterns, etc., these premiums being invariably useful articles, and figured that by giving the dealer a larger percentage of profit than he usually got and taking less himself he would gain in the volume of sale. Small profits and quick and large returns was his motto.

At that time he was his own salesman, bookkeeper, packer and, in addition, he took rapid trips about the country. He saw to it himself that his gum was properly placed. He created great enthusiasm for it with the dealers. Some of the premiums proved rather costly, but he persevered. Nineteen thousand handbags came back upon him out of 100,000 distributed. There were premium umbrellas which proved rotten, for the dye ran and spoiled other goods. He had to pay a pretty penny in damages in this umbrella adventure besides taking back more than 150,000 of them.

Wrigley is a convert to the idea that success lies in keeping everlastingly at it. The more he studied the business field the more he was impressed with the value of advertising. He was yet to see himself in imagination the world's largest advertiser. His wildest dreams had never included a $23,000,000 advertising campaign which he was to see materialize.

A step in the right direction was his first advertising effort, which was confined to bill-boards. This was in Southern towns in 1897. He was first obliged to go very slowly but in 1902 he tried out a comparatively heavy expenditure of advertising in New York City. This used up his surplus of $100,000 and it did not make a ripple on its surface.

But William Wrigley was not at all discouraged. He promptly set to work to accumulate another hundred thousand — and again he tried to make an impression upon Broadway. Again there was no result.

He then went to such towns as Buffalo and Rochester in the State of New York and billboarded them. This time his advertising caught on, but still he was persistent and determined to make another try in New York.

He ran an advertising campaign which cost him a quarter of a million dollars. This proved a huge success. In 1907 he planned another New York campaign to cost a million and a half. And he took a gambler's chance on this campaign, for if it failed he would have been wiped up for all time: This proved to be a panic year, but Wrigley was cautious and he laid all his plans with a masterful thoroughness.

In this campaign his idea was to give away coupons entitling the holder to a box of gum free. Many dealers were skeptical. They were suspicious of getting the gum for nothing, and threw the coupons away. Then they realized that the coupon was genuine and they began to send them in. Wrigley's business troubles ended in a little while and in a dozen years he had spent no less than $20,000,000 in advertising the world over.

Wrigley states that in one year the advertising bill exceeded $3,500,000. He had mapped the secrets of successful advertising. The more he spent in this way the more he made. But this success was not won until after many disastrous failures. He had mastered the art of advertising.

He had mailed four sticks of his chewing gum free as a sample to nearly 2,000,000 telephone subscribers. This distribution was increased in 1919 by his sending his samples to about 7,000,000 homes. He advertises in every street car in the United States.

"Tell 'em quick and tell 'em often." Thus does he sum up his advertising policy. You must have a good product. Then you must have something that people want. Then tell folks plainly and clearly what you have. Do this in as few words as possible and keep everlastingly coming at them. This is his secret and he has paid out millions of dollars to learn it.

William Wrigley, Jr., is a married man. He married, in fact, when he was only twenty, on only twenty dollars a week. Not many years ago he bought a beautiful estate at Pasadena, California, and after that a whole island — the Santa Catalina — in the Pacific Ocean.

Mr. Wrigley is a great believer in California and boosts for Los Angeles and all of the country around it. In commenting upon the city of Los Angeles and its prospects Mr. Wrigley once said:

"Los Angeles is destined to be the third largest and most influential city within 10 years. I believe that this will come to pass within 15 years, but I feel certain it will be a reality by 1942.

"And quite naturally Southern California in the next generation will grow into one of the world's greatest beehives of industry when Los Angeles takes its place just behind New York and Chicago.

"Los Angeles will continue to be a prosperous city and Southern California a prosperous section, and both growing wealth and population because of three important factors. These are climate, perfect roads and the progressive spirit and high calibre of the inhabitants.

"Southern Californians have a fuller enjoyment of living than those of any section or community on the face of the earth. People out here really live, not merely exist. They are lovers of the great outdoors. They have plenty of room to breathe in. They have rosy-cheeked, bright-eyed children, whose brains are keen. They live by the wayside as they pass down through the years.

"The United States, considered as a whole, has been on a 'business drunk' for the last five years. Prices have been out of all sense of proportion. A few years ago some fellows charged three times what a thing was worth, and then, because some buyer paid what they asked, wanted to kick themselves because they didn't charge more.

"I have to keep a close tab on the country's economic situation, and I am glad to say business is getting better in the East. The good old American dollar is coming back into its own. People from one end of the nation to the other are getting around to the idea that the only basis for real prosperity is an honest day's work for a fair day's wage.

"The higher value of our dollar has kept the foreign trade of the United States from expanding. However, I am selling more chewing gum in Europe as each month goes by, and I believe other American products show a like gain in foreign favor. The greatest cure for hard times is to stop talking, get a job, be a doer, not a dreamer and try to keep your money helping improve the public good.

"The year 1921 was regarded as a pretty bad period by many large concerns in the East and Middle West. For me it was the best year in the entire 31 years I have been established in the chewing gum manufacturing industry.

"My branches on the Pacific Coast broke all records. Even in the South, which was hard hit early last year, my salesmen reported a fine business. The judicious use of printer's ink is the greatest selling force in the world.

"I am spending $11,000 a day to advertise my chewing gum. I am also spending what would be a ransom for a powerful king in the good old days to advertise Catalina Island. If you do business on a world-wide basis, or in the locality encompassed within four or five blocks, you have got to keep the people interested or you won't sell your goods. And the only effective way to appeal to a few hundred people or hundreds of millions is an advertising space.

"I am spending $1,000,000 a year to improve Catalina Island. So far I have spent $3,000,000 on improvements there and the steamship line from Wilmington to Avalon. I have but recently completed a home for myself on the island at a cost of $150,000. So the reader can see I have abundant faith in the future of Southern California."

Wrigley keeps in good trim physically. He is just the same smiling, good-humored "Bill" that he was in former days. Nothing can ruffle him. He gets to bed before eleven and is up at five, and takes regular exercise daily. He is an expert swimmer, and for years boxed daily at the Chicago Club with an instructor. He plays golf and polo and for ten years was in the saddle of a good horse every morning before seven.

"A man's doubts and fears are his worst enemies," is one of his favorite sayings. This man never gets frightened, no matter what happens. He never worries. If he lost everything he had today he would smile, take off his coat and start in all over again. He believes in placing himself in the other fellow's place. He led the Chicago manufacturers in Saturday afternoon closings.

William Wrigley has arisen to the foremost place in the world as a purveyor of chewing gum. He has built up a business that extends to the four corners of the earth — a business that is known wherever advertising is proclaimed — a business that has arisen supreme over every reverse and has made of one of the commonest articles of commerce — an article that sells for but five cents — the subject of one of the greatest material successes ever achieved by a human being.

Americans have become a gum-chewing nation. This is nothing new. But it may be of interest to know that the single manufacturer whose policy is persistent advertising, has built up his business to the point where he can turn out 43,000,000 sticks of gum daily. If conditions warrant, the Brooklyn and Chicago factories of the William Wrigley, Junior, Co. could turn out in three hundred working days each year a total of 12,900,000,000 pieces of gum.

Many thousands of people all over the world use chewing-gum every day and enjoy it without even suspecting its origin and nature. Chicle, pronounced "chikl," is the sap of a Mexican tree with a musical botanical name of achras sapotta. A single tree will yield twenty-five pounds every two or three years if carefully cut and scientifically cultivated. As far back as the days of Columbus, records show that he was granted rights for sapadillow, which was apparently the same substance now used by the American Chicle Co. and by William Wrigley, Junior, Co. The natives at the time of discovery of this country knew of the excellent qualities of chicle and used it to quench thirst when water was not obtainable. The tree from which it is extracted is a species of palm of large growth.

The producers of most of all the chewing gum consumed, own more than 3,000,000 acres of land in Mexico thickly wooded with chicle trees and from this area is taken nearly 2,000,000 pounds every year of the elastic gum that has become universally known as the most agreeable and effective of all masticatory materials.

At first thought it would seem incredible that so much of this substance could be converted into chewing gum. But when we consider that the monthly output of the American Chicle Co. alone is 800,000 boxes, each containing 100 sticks of gum and that there is a continually growing demand that makes this enormous production frequently inadequate for the trade, the industry of gathering chicle in the raw state becomes important and interesting.

The company has a curiously picturesque and engaging community of native workers on the chicle lands of Mexico comprising about 1,000 men and 200 women. During the season of extracting the gum the men work steadily and for long hours and the women pursue the ordinary domestic routine of cooking, washing and mending and caring for children. They are a happy, contented lot, these workers, and their resting hours are devoted to music, social entertainments and smoking. It is fair to suppose that the women and children also indulge generously in the chicle.

The company carries this community over season after season and is thus always supplied with an abundance of proficient labor of the kind that doesn't trouble about strikes. The raw gum is carried by carts or burro packs to a landing place on the Chanpoton River and from there to tide water at Tampache, thence by steamship it is brought to New York and distributed in desired quantities to the company's various factories.

In the manufacture of chewing gum as in many of our food and confectionery industries, the most striking feature is cleanliness. All of the factories are wholesome and inviting. The workmen and women are in spotless white and even in the more manual departments, where the gum is boiled, one finds that scrupulous cleanliness prevails. The process is no more complicated than the making of any other succulent confection. The gum is boiled to essential consistency and placed in centrifugal machines, the rapid revolutions of which whip it into a dough and it is then kneaded in powdered sugar, cut to proper sizes, dried, wrapped and placed in boxes. The pepsin gums that are especially good for indigestion are no less delicious than the other brands and are put through a special formula which gives them the distinctive properties that have made them popular.

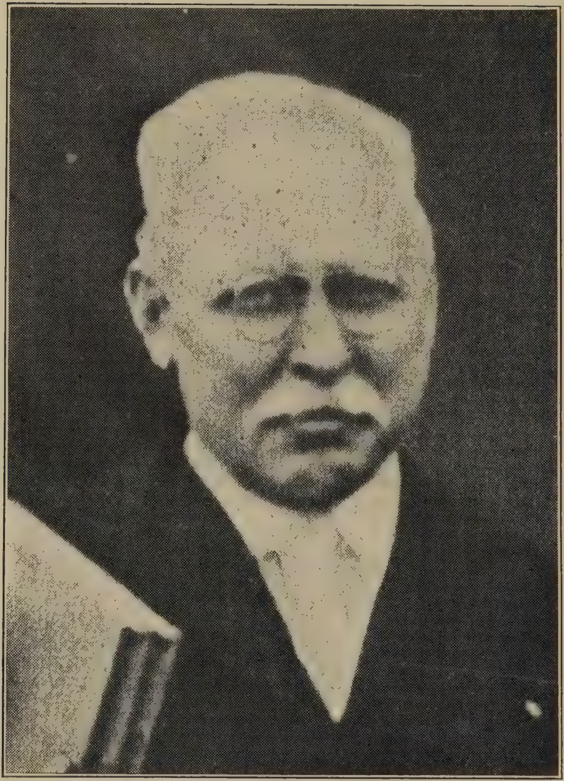
A visit to one of the company's factories will dispel any wonder as to why the chewing gum habit has become universal; it will make a convert out of the most doubtful individual. That this habit is a popular one cannot be gainsaid and that it is growing enormously is most obvious.

The trade in chewing gum, practically controlled by the William Wrigley Co. and the American Chicle Co., is one of the wonders of commerce. Think of a contract for $10,000,000 for profit-sharing coupons, covering a period of five years such as is made by William Wrigley, Junior, Co. The American Chicle Co. has factories in Newark, Cleveland, Chicago, Louisville, New Orleans, Toronto, Canada and London, England.

The Wrigley, Junior, Co.'s stock has a market on the Chicago Stock Exchange, with occasional transactions on the New York Curb market. There are 495,000 shares, of no par value, which pay $6 dividends. The gross overturn of the Wrigley Co. runs up to $30,000,000 a year, or about three times that of the older American Chicle Co.

William Wrigley, Junior, has stuck to his last. He has stuck to two things — advertising and gum. His first quarter million dollar advertising campaign was a "dud." Since then he has similarly invested $20,000,000 and his factories in Chicago, Toronto, Brooklyn and Sydney, Australia, turn out 10,000,000,000 sticks of gum a year, enough laid end to end to reach from New York to Galveston and bridge the Gulf of Mexico.

The Wrigley Tower is Chicago's latest architectural wonder and Wrigley stock is one of the Chicago bourse's favorite issues. He has in the Wrigley Building in Chicago an edifice which cost $4,000,000. This building with its 400-foot tower, was erected in five months and a day of working time, from the first sub-basement column to the completed tower and with 50% of the inside plastering finished. It is a worthy landmark of the great enterprise and its master-mind.



SAMUEL INSULL

Samuel Insull did not wait for Opportunity to knock at his door. He prepared himself to find it and to take advantage of it. So thorough was his preparation that he is now head of Edison Works in Chicago and the chief of the Edison organization known as "Pioneers"—and his boyhood ambition was to work for Edison.

He believes that the man who accomplishes things is the man who is awake to his opportunities, and not necessarily the near genius, who has some special talent. Insull has worked, he has always looked ahead of his present position, and no executive is more deserving of his prestige and power than he.

SAMUEL INSULL

SAMUEL INSULL, the head of the Edison Works in Chicago and chief of the Edison organization known as "Pioneers," was born November 11, 1859, in London, England. He began life as an office boy at $1.25 a week, a sum which he had to supplement with earnings from other duties in the evenings. He mastered shorthand while still a boy and worked nights at the home of Thomas Gibson Bowles, proprietor and editor of "Vanity Fair" in London. For this he received an extra $2.50 a week.

It happened that in an American magazine, Insull read in his early boyhood days an article on electricity written by Thomas A. Edison, then little known here and almost unheard of in Europe. The writer, Francis R. Upton, was one of Mr. Edison's closest associates, and the article made a distinct impression upon Mr. Insull. It so happened not very long afterwards Insull lost his regular position, and answered an advertisement in the London Times. The advertiser was Colonel George E. Gougard, the resident director in London of the Mercantile Trust of New York, an English representative of Thomas A. Edison.

Mr. Insull was at that time doing secretarial work for Sir George Campbell, a well known member of Parliament, and in an interview young Insull favorably impressed Colonel Gougard. He became Colonel Gougard's secretary, and within a short time resolved to qualify himself for the position of secretary to Edison. Consequently, he not only did his full day's work with Colonel Gougard but, as a possible steppingstone toward his goal, made himself useful at night to Edison's technical representative in England, E. A. Johnson, who was then assisting in the formation of the Edison Telephone Co. in London. One day he confided to Mr. Johnson his ambition to serve Mr. Edison. The energy of the young secretary was remarked by Americans visiting the Edison headquarters in

London and he received an attractive offer from a prominent international banking house in America to come to New York.

To have accepted this offer would have diverted him from his goal, so he refused the proffered position and one day he received a cable message from Mr. Edison saying that he wanted him as his private secretary. This was when he was 21. Full of hope, Insull set foot on American soil on February 28th, 1881. He had equipped himself thoroughly for the opportunity now within his grasp. He had stored up much information concerning electricity and so eager was he that he had been given the honor of serving as operator for the first half hour in the first experimental telephone exchange erected in Europe.

On reaching New York in 1881, Mr. Insull immediately entered Mr. Edison's employment, the year Mr. Edison opened business offices at 65 Fifth Avenue. In that year he established his first commercial incandescent lamp factory at Harrison, N. J. Here were manufactured dynamos, underground conductors, sockets, switches, fixtures and meters. He invented and installed the first standard electric railway for freight and passengers at Menlo Park, N. J. In September, 1882, he commenced operations of the first commercial central station in New York City for distribution of electric current for light, power and heat. These were busy times for Mr. Edison who utilized a first-class assistant like Mr. Insull to advantage. Moreover, these were the days of the strenuous exploitation of the electric light, days and nights being given over to the work. The first three-wire central stations for electric lighting had been installed at Sunbury. During these years Edison took out upwards of 300 patents. Many of these were of first rate importance, and included that covering the meter system and also that covering the three-wire system. In 1887 Mr. Edison moved to the present laboratory at West Orange, N. J.

Mr. Insull, in speaking of his early experiences with this master mind of the electric industry, comments as follows:

"I was taken out to Menlo Park by Mr. Edison and I well remember how surprised I was to see the fields around his laboratory, the houses of himself and his assistants all illuminated by this wonderful new light, using a carbon-filament lamp — a decided improvement on the paper-filament one which I had seen in London. I recall that I was quite impatient on that occasion to run down to the railroad station from the laboratory, about half a mile away, to send a cable to my friends in London, telling them that I had seen Edison's system in operation. About ten or twelve days later I received an acknowledgment from the man to whom I cabled in which he said he supposed I had been in America just about long enough to be able to draw the long-bow as well as any of those Yankees with whom I had been associating!

"I used to open the correspondence and answer it all, sometimes signing Edison's name with my initial and sometimes signing my own name. If the latter course was pursued, and I was addressing a stranger, I would sign as Edison's private secretary. I held his power of attorney, and signed his checks. It was seldom that Edison signed a letter or check at this time. If he wanted to send a communication personally to anybody, particularly one of his close associates, it was usually a pencil memorandum, signed 'Edison.' I seldom took notes from Edison's dictation, unless it was on some technical subject that I did not understand. I was expected to attend to the correspondence with Edison's notations as a guide to the character of the answer. It was a very common thing for Edison to write the words 'Yes' or 'No,' and this would be all I had on which to base my reply. Edison marginalized documents extensively. He evinced wonderful ability in determining the weak points of an argument or of a balance sheet, all the while protesting he was no lawyer or accountant. His views were expressed in very few words, but in a characteristic and emphatic manner.

"I had to work in the office all day, look after the financial and business end, and then very often I would be with Mr. Edison at his laboratory most of the night. We usually worked four nights in seven. We seldom worked on Sunday nights but, as a rule, we were busy during most of Monday night and Tuesday night. By Wednesday night we were so exhausted through lack of sleep that we usually spent that night in bed. Thursday and Friday nights saw us busy again until well into the morning. I have known Edison to work night and day ten days on end. He seemed to be able to do without sleep as long as a camel can go without water.

"At one time everything looked so blue and so hopeless that Edison said to me one night in all seriousness: 'If we cannot pull through, I can go back to earn my living as a telegraph operator and I suppose you could get along as a shorthand writer.' For six months things were so involved and money so scarce that I was compelled to get a friend, who had been a little more thoughtful of the rainy day than the rest of us, to lend me money to pay for my meals and my room. Mr. Edison and I, as his financial man, were harassed at every turn by creditors. Looking back from this long distance, I must confess that our troubles then were really very serious. However, we stuck to it and finally managed to get on our feet. About the only people who were willing to assist us in those early days were J. P. Morgan and Henry Villard."

Mr. Insull is a man of great business capacity. As President of the electric light companies of Chicago now consolidated as the Commonwealth Edison Co., which position he has held since 1892 and as an officer and director of other large public utility corporations, he has had great experience with executives and other members of a large organization.

"The men who have gone ahead of us," says Mr. Insull, "have not done it because of any extraordinary natural ability. The near-geniuses among us have not, as a rule, done so well. I find that near-geniuses have a way of getting tangled up in the special limitations which brilliant people so often seem to have.

"The men I know who have gone ahead have been just normal fellows. They were set off from the others, in the beginning, only by the fact that they have made a practice of using the constructive little opportunities which others have neglected. And that practice gave them the especial abilities they needed.

"One of our vice-presidents came with us as an inspector of underground work, another as an office boy. Our secretary and treasurer began with us as an office boy, and so on down the line.

"None of them was rich or had influential friends to back him. Some of them had not even so much as a high-school education; but they all had the characteristics I have mentioned — a sort of eagerness to be serviceable in unexpected ways. It was this, more than all other factors put together, that has put them where they are today."

Mr. Insull believes that not every one realizes that the way to get on, is to do more than is expected of one. The progress of men in business is most often held up by lack of knowledge, lack of self-confidence, and that idle habit of thought that does not lead to action.

The opportunity to do the little unnecessary but essential things, just beyond one's absolute duties, is a direct attack on all three of those failings. It develops knowledge right where knowledge is needed most, by the incomparable method of experience. It develops self-confidence in the same way. And it is itself the very process of getting action as a result of thought.

Mr. Insull tells the advantage of this method in his own case, for it was through the "blind advertisement" he had secured a place as secretary to Mr. Edison's representative in London. He had gone into the business without any knowledge of either the technical or commercial side of it.

But he prepared himself rather quickly for a better place by doing work outside of his regular duties. The first chance came only a few weeks after he had taken the job. His chief had sailed for the United States and left him behind. There was little to do in the office and he might have had most of the time free. As a matter of fact, it was expected that he would. But he had a vast deal of curiosity about the business, and he did not take the time for his own devices. Instead he stayed in the office and read and reread every document he could lay his hands on.

When the chief came back Mr. Insull was able to supply him with information on current affairs, and more than that, on things which had occurred previous to his coming in the office. He was in a position to relieve his chief of more work than he had thought possible. By simply reading up on the subject and paying attention, all had come about in the simplest possible way. His exceptional capacity made a considerable impression on his chief.

The second outside task came a year or so later. "A report on electrical development," says Mr. Insull, "in England and on the Continent was being prepared by Mr. Edison's technical representative in London. This man wanted a stenographer to work with him evenings, perhaps two months, and inquired if I could not find a stenographer for him. I volunteered for the job. It struck me that here was my opportuntiy to brush up on the technical side of electricity, of which I was still pretty ignorant, although I had become fairly well informed on the commercial side of the business.

"I got the job. I was kept busy at it often until midnight, on top of unusually active days. But this job brought quick results.

"The technical man went to New York with his finished reports. He wanted some one while he was away to keep posted on certain European properties in which he was interested and send him weekly reports on them. I was chosen because of the familiarity I had with the properties, and with the special requirements of this technical man, which I had gained from my evening sessions with him as stenographer.

"As it turned out in the ordinary course, these reports were shown by the technical man to Mr. Edison. They were only small compilations of certain matter and there was nothing elaborate or difficult about them. My workings with the technical man made it easy for me to prepare them. But Mr. Edison liked them. They showed a familiarity with the properties and with every detail of the business that Mr. Edison liked. Just at that time he was needing a secretary so he asked the technical man for me and then sent for me."

The great advantage of making a constant effort to be more serviceable is the alertness which usually gives a man suggestions for improving his work, even if the suggestions are implied. The fact is that the best suggestions in any office are likely to be apparent to people who are only peculiarly sensitive to them, — who are on the lookout for them.

"Some years ago" continued Mr. Insull, "we had a new clerk who was starting off by allowing things to accumulate on his desk. That is, of course, a bad habit to start. Everything should be disposed of every day, even if the disposition is only a definite decision to lay it aside for future consideration. The things a man leaves over night are usually things he just hasn't been decisive about. And if a man, who is just beginning, and hasn't much to do, habitually fails to dispose of the matters before him, you are likely to think he will follow the same course in a higher position, where more and larger matters will come to him.

"This young man was somewhat influenced, I imagine, by the bad example of an otherwise excellent older employee in the same room, who left things on his desk. One way to handle the situation would have been to call both men in and tell them plainly where they were wrong, and why. I have done it that way some times; but there are other ways that often are more satisfactory. I called in the older man and asked him to speak to the new man about leaving things on his desk. And I suggested that it would probably be better if he did it as if on his own initiative, without mentioning me.

"The next morning both men's desks were clear. Neither knew that I criticized him. The older only knew that I had criticized the younger; and the younger did not know that I had spoken at all. But both were quick to get the point; and it showed something about them that I liked to see.

"Working with Mr. Edison I was greatly impressed with his terrific industry. He was a man full of ideas. He became absorbed in his business and would frequently stay up all night on it. It was an inspiration to me to see the comprehensive way in which his mind worked. He was continually bringing out some new thing. And so I took note of the various ramifications and angles of Mr. Edison's mind. I found it running on and taking excursions into some of the most unexpected fields."

Mr. Insull has been in close connection with Mr. Edison ever since 1881, the year he began business with him. His close association with the "wizard of electricity" had enabled him to gain practical knowledge of every phase of the business and to develop an ability to handle men. To escape incessant labor troubles at their machine shop in New York, and at other points, it was decided to build works at Schenectady, N. Y., where there was a plentitude of workers and where the Schenectady Locomotive Works (now the American Locomotive Co.) had established a great reputation. Mr. Insull took part in this epochal enterprise and as its general manager built it up from a plant employing 250 men to one employing 6,000. It was this plant which later formed the nucleus for the great General Electric Co.

Recognition of Mr. Insull's yeoman service came in 1889. Various Edison manufacturing companies and the Edison Light Co. were consolidated under the Edison General Electric Co. amalgamated with the Thomson-Houston Co. to form the present General Electric Co. In the fall of that year Mr. Insull resigned to accept the presidency of the Chicago Edison Co. He found this concern had a total capital of only $883,000, that it was not the largest concern in the city, and that it had almost a score of competitors. It employed only a handful of men and had a capacity of only 4,000 horsepower.

Samuel Insull has worked hard for this company for the past 25 years. Instead of less than $1,000,000 of capital, this company (now the Commonwealth Edison), has actual assets of $152,000,000. Instead of 4,000 horsepower, it has 525,640 horsepower. Instead of consuming a few hundred tons of coal a week, the company now uses as much as 300 tons of coal in one hour.

Mr. Insull is head of the People's Gas Co. and of the Elevated Railways of Chicago, which together with the electric company, have a turnover of $1,000,000 every week and represent an investment of $275,000,000. Through the Middle West Utilities Co. and other organizations brought into being and controlled by him, Mr. Insull supplies 350 communities spread over thirteen or fourteen states, with electric power. He has brought the total annual revenue of his various companies up to $75,000,000 and making the total invested capital between $400,000,000 and $450,000,000 for all the Insull companies. His 1892 force of a few men has grown to an army of more than 25,000 people. Customers have increased from hundreds to hundreds of thousands, and are still constantly increasing. The asset value of Commonwealth Edison has multiplied 100 times in the last 26 years.

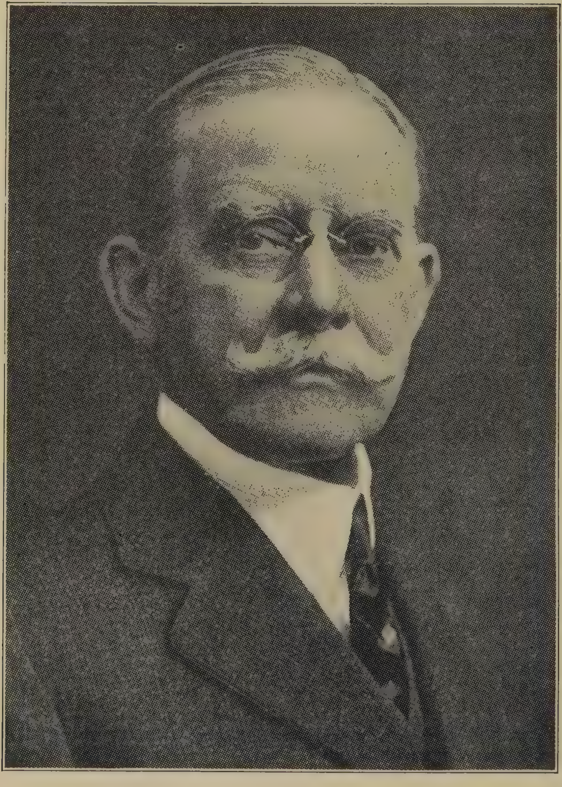
Mr. Insull several years ago demonstrated in black and white that he could supply the elevated railroads of Chicago with current at a lower rate than they themselves could generate it, and his company now turns every elevated wheel throughout the city. Instead of several central stations selling electric current, Chicago now has only one great station, a giant of greater proportions than any other metropolis in the world can boast.

As a matter of incontrovertible fact, Chicago, thanks to Mr. Insull's tremendously aggressive policy, enjoys the lowest rates for electric current of any large city at home or abroad. He has been a pioneer in installing new devices, especially the more recent high-power, costly machinery designed for large-scale production at lower cost. But while ceaselessly trying to improve the production end he had devoted even more attention to developing the selling end of the business. He has been a great believer in advertising, in making the public acquainted with what electricity can do for the housewife, the storekeeper, the manufacturer, the railways. While others sought to antagonize the investigation mania that swept over the country a decade ago, Mr. Insull willingly volunteered to "put all his cards on the table."

He believes that the age of electricity is only dawning, that developments of a magnitude not yet imagined are even now on the way and that by and by the greater portion of the world's work will be performed by the harnessing of the mysterious vital fluid in a thousand ways which even Edison has not yet had opportunity to discern. He believes, for instance, that properly conducted central electric stations should and eventually will furnish the power to run all the railroads in the country, the railroad people attending to the operation of their systems and the electrical people attending to the supplying of the automotive power. Germany's dream of dividing the country in a number of zones within which every house and factory and railway will be supplied from one huge plant in each zone is not so extremely fantastic as one would imagine. A similar scheme for the United States was proposed by a very famous British engineer, S. Z. Feranzi, years ago.

If Mr. Insull lives long enough he may do something along this line for the United States — indeed, he has already made a substantial start in Illinois and in a dozen or more Middle Western States, although so far he has not been able to do much with steam railroads. He never tires of talking of Mr. Edison. He finds him a man who has produced a useful invention every two weeks for almost 50 years, who was fired from every job he held, but who built up a fortune of millions for himself and immortal fame

The favorite hobby of Mr. Insull is farming. He has a 3,500 acre farm in Lake County, Illinois, about 30 miles from Chicago, where he is rendering valuable service to the State by raising, and showing other farmers how to raise, high-grade cattle, horses, sheep and oxen and improved methods of agriculture.



JOHN H. PATTERSON

John Henry Patterson was the father of the cash register industry. His early experiences taught him the need of a machine that would print receipts for sales. He built up a business to meet this need and his receipt giving machine has been netting large profits ever since.

Patterson was the benefactor of Dayton, Ohio. He did not put it on the map—but he kept it on the map at the time of the Dayton flood. He handled the governmental investigation of his business and a serious strike of his employes in a way that proved him to be a fearless, thoughtful, and successful master of industry.

JOHN H. PATTERSON

JOHN HENRY PATTERSON, who, until his recent death, was president of the National Cash Register Co., of Dayton, Ohio, ranked among many as the best employer in America. He practiced the Golden Rule in his business.

He was born December 13, 1844, at a time when cash registers were yet to be heard of. His people were Scotch-Irish. His great-grandfather, whose son fought as a colonel in the Revolutionary War, came to America about 1728. The cities of Lexington, Kentucky, and Cincinnati, Ohio, were first discovered by his forbears. They finally located on a 2000-acre farm near Dayton, where John Henry was born, almost upon the spot now occupied by the plants of the National Cash Register Co. As a lad, one of eight children, he had to work hard on the farm. He received a good education, first in the Dayton schools and later at Miami University and Dartmouth College, where he graduated in 1867, after an interruption of one hundred days service in the Civil War.

This was the man of whom John D. Rockefeller said: "John H. Patterson has spared no expense in finding, securing and utilizing the best and cheapest methods of manufacturing. He has had the best superintendent and workmen, and paid the best wages."

The idea of the cash register was born in 1879. It was born in the brain of Jacob Ritty, a Dayton merchant, who suffered from a breakdown from overwork and worry in attempting to keep tabs on the details of his business. Mr. Ritty hit upon the idea of a cash register and built the first machine of this kind. He thought it practical and he sold it to the National Manufacturing Co., who in 1888, sold it to the present owner. Until 1892 business prospered. Then came a time when there were many registers returned as defective, causing a heavy loss in dollars and also in reputation.

Mr. Patterson originally bought two of the cash registers because he was in business and needed them. Crude and clumsy though the machines were, they were the means of immediately turning his store's loss into a substantial profit. He had succeeded in borrowing a little money and set up as retail coal dealer in Dayton. From selling coal he gravitated to mining coal and iron ore, in partnership with his brother, Frank, in Jackson county, some 80 miles from Dayton. To enable their miners to obtain supplies, the Pattersons, in conjunction with two other mining concerns, opened a store. Business was plentiful, but profits were nil. At the end of two years the store had not netted a cent, notwithstanding that all goods were supposed to be sold on a fair margin of profit. It was evident that there was a leak somewhere.

John H. Patterson from a boy had one outstanding trait. He was always trying to improve upon things. He was never satisfied with a thing simply because it worked. He wanted to make it work better. In his father's saw and grist mill, he had noticed that the big carriage that hauled the logs to the saw didn't seem to work right. The saw mill was very busy at the time, and his father refused to stop the machinery merely to let the boy "project" with it.

But the boy was determined. Early the next morning he hurried down to the mill long before breakfast and began tinkering with the log carriage. When he was through and started it going, it worked smoothly without a hitch. The heavy logs were carried to the saw evenly and at the right speed. His only comment on the achievement was that he had "made it go better!" He had put in new bearings, leveled the track and cleaned and oiled everything. This little incident is typical of John H. Patterson, the boy and the man. Nothing suited him unless it was right and he never rested until he made it so. So he set to work with his brother, a skilled mechanic, and evolved the cash register with its improvements. He saw that the new invention had unlimited possibilities.

The first machines had no cash drawers, no adding wheels, and did not print a receipt. The brothers had a tremendous struggle to get the business started. They could get no financial backing, as there was no one with any confidence in the cash register. At the end of the first few years they had sunk practically all their money and were worse off than when they started. Then came the crisis when about $50,000 worth of cash registers were thrown back on their hands because of poor workmanship.

Mr. Patterson became very discouraged. Yet he knew that the business was fundamentally sound, supplying a distinct need. He knew that there were losses going on in every store in the country. The problem was to perfect this machine, when it was bound to find a ready sale. Even then he had in mind the day when he would build a machine that would issue a receipt and thus give the merchant maximum protection. For a long time his inventors were unable to design a machine which would print a receipt.

In a former business as canal collector, he had receipts printed in five different colors. One color was for soft coal, one for hard coal, one for coke, one for wood and one for lime. Each driver had to get a receipt from the customer upon delivery. This receipt was proof that the customer had received the goods he had paid for or been charged with. As a result of this little reform, business doubled within a year. This receipt did away with disputes and gave the firm a great deal of good advertising. So his confidence in the ultimate success of the cash register business never wavered from the beginning.

It was based on his experience as a boy on the farm, in the grist mill, in the market, in the canal collector's office, in the coal business, and as a partner in a retail store. The great lesson he learned from each was the absolute necessity of a receipt for the safe and sound conduct of business.

One can perhaps, therefore, appreciate his enthusiasm for the receipt. The idea of giving and getting a receipt is responsible for the success of his business. Because of the obstacles, handicaps and discouragements under which he labored, it is to be doubted if he would have had the faith to continue, had it not been that his own business experience convinced him that the receipt-printing cash register was needed throughout the world.

Mr. Patterson knew that he got a receipt from the railroad —a ticket. When he bought transportation from the government, he received a stamp, his receipt for his money. When he bought real estate, he got a deed. In fact, it was difficult to think of any business, outside of stores, in which a buyer did not get a receipt for money spent. Then why should not merchants also give a receipt for each purchase?

Steady perseverance with the receipt idea and effort to perfect his cash register at last resulted in complete success and he became one of the greatest factors in industry. Yet, it took him 19 years to sell his first half million registers. The next 500,000 he sold in five years and now cash registers leave his factory at the rate of two every five minutes. Today the plant founded by Mr. Patterson covers almost 14 city blocks and a floor space of nearly 50 acres and accommodates some 6000 employes.

The cash register today is a familiar sight the world over. It is an ornament to any store. When the merchant owning a cash register closes his store for the day, his register tells him how much business each clerk has done, how many customers each has waited on, the total amount of money taken in, the number of "charges", "received on acc't", and "paid out" transactions handled during the day. If any mistakes have been made the register tells who made them. It also prints and issues a receipt or prints figures of the amount paid or charged on original and duplicate sales-slips. It also prints a permanent record of each transaction on the strip of paper inside the register. The merchant has before him at the end of the day, legibly printed in indelible ink, a complete record of the day's business.

What a change this is over the former method of doing business. Before the day of the cash register, a customer might come in, buy something and ask the clerk to charge it. The goods that went out represented money to the merchant. He gets a little scrap of paper which was all he had to show for that money. If it was lost, his profit was lost besides. More than that, if the clerk forgot to make the charge entry, there was absolutely nothing to show for the goods the customer had taken. All this was impossible with the cash register.

It took years of patient study and costly experimentation to bring the cash register to perfection. First one improvement was made, then another, until it almost seemed that no further improvement would be possible. Yet always with John H. Patterson the search has been for ways of making the register of even greater service to the merchant.

When it became clear to Mr. Patterson that there was something wrong in his factory, he moved his desk in and started an investigation. He discovered that his trained workmen were leaving because working conditions in his factory were no better than those in any other. There was serious lack of knowledge of the business among the workmen. Also, neighborhood conditions were affecting the quantity and quality of the product. In Slidertown, the section of the city in which the factory was located, skilled mechanics simply would not live or work. The disreputable section of Dayton which was known at Slidertown was full of thieves, gamblers and gunmen.

He soon saw that he lacked the co-operation and sympathy of his employes. He had up to that time been far from a model employer. He had tried to get the most for the least from his men and they, in return were trying to deliver the least value for the greatest amount of money. The question with him now was would he continue to drive his people as all manufacturers then were doing, regarding their workmen as part of the machinery of production? Or would he smash precedent by admitting that he had been seriously at fault and begin to treat the workingman as a human being, entitled to humane treatment.

So Mr. Patterson, after studying the Slidertown problem, decided that perhaps the best thing to do would be to set a good example for the neighborhood. So he cleaned up about the factory premises, painted the building, planted flowers, shrubs and grass. A free landscape gardening school was started, prizes were offered for the best kept yards, window and porch boxes. Thousands of shrubs, plants and packages of seeds were distributed.

This was done on the theory that beautiful surroundings are conducive to good work and that the man who takes an interest in his home and his surroundings will prove a more valuable worker than a man who lives in a slovenly shack.

The plant of the National Cash Register Co. consists of beautiful buildings, set in shrubbery. Everywhere are flower boxes and things of beauty. The grounds around the factory buildings had been laid out at great expense and with the most assiduous care by the foremost landscape gardeners in the country.

Quick failure had been predicted when the new steel and glass palace of industry was built. The boys of Slidertown, said one critic, "will smash every window in it". The boys did continue to throw stones through the factory windows and do all sorts of damage. An attractive tract of ground near the factory was set aside as a vegetable garden and each boy had one lot. Reasoning that the bad boy was merely the boy of energy plus, without legitimate outlet, John H. Patterson decided to provide a house and grounds to teach him gardening, carpentry, and a lot of other useful things. The company plowed the ground, provided the working tools, and 100 boys were put to work raising vegetables. This acted as a charm. The boys gave up the evil ways of their environment and became useful young citizens. The work still continued and many of the Boy Garden graduates are now working for the United Cash Register Co. There were no more windows broken in its "crystal palace."

When war was declared, Mr. Patterson offered his own services, his plant and all its resources to the government. The record of the National Cash Register during the war spoke volumes for the efficiency and morale of the organization. The company was called upon to make instruments of precision which required the greatest possible exactness in manufacture. Without any previous experience along this line, the National Cash Register was, within a few short weeks, putting the manufacture of the instruments on a quantity production basis. The motto of the company became, "War first, business second—if there is any time for business."

Few employers who have made millions have chosen to spend the best part of their fortune on their employes. To this Mr. Patterson was a marked exception. As one writer said: "John H. Patterson devotes his life to building cash registers and making workers happy."

When the great flood came to Dayton in March, 1913, the National Cash Register plant was untouched, standing on high ground. Mr. Patterson immediately summoned his executive force and announced: "I declare the National Cash Register Co. out of commission and I proclaim the Citizens' Relief Association." He then made a rough sketch of a boat in order that some be made immediately. The first boat was brought to the water in 15 minutes; after that the factory turned out boats at the rate of one every seven minutes.

The citizens of Dayton turned to Mr. Patterson at the time of their great need. He aided the relief work and attended to everything with such wonderful efficiency and generalship that when General Wood and Secretary of War Garrison arrived on the scene, they stated that Patterson had done all that could be done. It was some time before the water subsided. Meantime the National Cash Register Co. was doing all the relief work, caring for 5500 of the homeless flood victims.

By common assent Patterson became the acknowledged director of the whole rescue work. Never did military generals direct forces with more skill, with more rapidity, nor with more effect. The greater part of the city was flood-swept and laid under as much as 17 feet of water. It was Patterson, who, hours before the flood came down, by telephone, telegraph, by horseback, by automobile, and by other means of communication aroused the whole city to its impending danger and gave instructions as to how to fortify themselves against the coming avalanche of water. It was Patterson, too, who summoned his executives and other forces to Industrial Hall, mounted the stage, showing his famous pyramidal chart, illustration of the company, and volunteered the rescue association, naming a head of the great division of the work and showing them how to proceed.

John H. Patterson rose regularly at six-thirty, indulged in a glass of hot water for breakfast, and worked like a dynamo until noon. He then lunched on soup or vegetables and had a nap for a couple of hours and spent the rest of the day as his fancy dictated. For dinner he ate nuts, fruits and vegetables. For years he had not tasted meat or fish or fowl.

His home is an old-fashioned one, a thoroughly delightful place on top of a hill overlooking the plant and was owned by his ancestors. This quaint, unpretentious home makes a pretty picture indeed. He is survived by two children, a grown-up son and daughter. His daughter formerly had an office at the factory and directed the welfare work of the women's department before her marriage.

Mr. Patterson was very diplomatic and did not try to dominate the administration of Dayton, yet he reorganized it, from top to bottom. This came about following the time of the flood. The manager plan there, which he was instrumental in bringing about, has been notably successful. Dayton is now better governed than ever before and the taxpayers receive values for their money. The influence and example of John H. Patterson and his ideals have been an important factor in elevating the conduct of the city affairs.

Mr. Patterson's main object in life was to influence others, especially employers, to have more consideration for their workers. He reasoned that after a man has accomplished a competency, money can do nothing more than satisy his own wants. He then gets his main pleasure from doing good. He preferred to get his fellow beings out into the open, into God's sunshine, and enable them to enjoy the beauties of nature, than to hoard wealth.

The National Cash Register Co's business, with its factories in every part of the world, now employs more than 7500 people, and produces 60,000 machines a year. It has sold more than 2,000,000 cash registers to merchants in all the civilized countries of the world.

A few years ago, Mr. Patterson had his innings with the government. It was the time when there was a national mania for trust busting. The government, in rounding up some of the malefactors of great wealth, did not overlook the National Cash Register Co. Was it not rapidly becoming almost a monopoly? The reply of Mr. Patterson to the government was that he owned the basic patents for cash registers and that he was entitled to fight competitors both legally and commercially. And this he did without mercy. The fight was made in the lower court, which sentenced a number of the officers and responsible employes of the company to a year's imprisonment, but this verdict was quashed by the higher courts. Then the government renewed the matter and started to prosecute the company under the civil section of Sherman Anti-Trust Law. Mr. Patterson retorted that he would not antagonize the government and was induced to plead guilty to the technical charge of "conspiring to build a monopoly," a business policy which Mr. Patterson had all along insisted he was entitled to follow by reason of exclusive patent rights.

Mr. Patterson felt deeply upon the subject and he did constructive work and set an example to other employers in the treatment of workmen, which compelled him to struggle on against both labor and governmental obstacles after he had all the money he needed for his personal and family requirements.

Mr. Patterson also had his fight with strikers. During a period of acute labor unrest throughout the country, a strike took place among his men. His kindness had been misconstrued as weakness. Some of the men wanted to become masters of the establishment. They imagined that Mr. Patterson could be brought to submit to anything.

On learning that a strike was to be called by part of the workmen, he assembled the whole force and explained that he understood some of them were dissatisfied and told them that he himself was not wholly pleased with the way things were going and announced that a rest would probably do them and him good. He closed all his works without intimating when they would be reopened and then went traveling.

Within a fortnight some classes of the employes of the company began to criticize the malcontents. As time passed and there was still no intimation of reopening, inquiries began to be made as to when work was to be resumed. At the end of a month things began to be made unpleasant for those responsible for the shutdown. Petitions were sent Mr. Patterson to come back and open the gates. It was not until two months had passed that he announced that he would return to Dayton, although he let it be known that he had been invited to locate his works at other points.

The whole city turned out and gave Mr. Patterson a welcome home with brass band, public reception and complimentary dinners. They had become convinced that Dayton could not afford to lose Patterson.

But he would have none of their joyful welcome. Instead he replied by outlining a long list of things Dayton citizens ought to do to make their city more attractive, more efficient and healthful.

He then reopened the works and there was not another murmur of a strike and from then on he had no trouble with labor. Dayton had lost him and was glad to get him back. The true worth of his work with his employes and for Dayton was recognized. For a period there were fears that he would not come back. There were thousands of empty pay envelopes each week. Then there came a new era with National registers. The employes were filled with new ambition to do their best. Today National Cash Register is known throughout the world and has practically no competition.

John H. Patterson died suddenly while riding on a train May 7, 1922, nearly 78 years of age. His monument is one which will endure, for the beautiful city of Dayton itself is his lasting memorial.

JAMES SPEYER

James Speyer's financial shrewdness and power comes naturally from his forbears. He is democratic, courageous, and willing to express his views on all subjects—no matter how much opposition his opinions may excite.

He came to the aid of Cuba, when she was sorely in need of financial backing. Speyer & Co., of which he is the head, are international bankers. Mr. Speyer and his wife have been instrumental in organizing and maintaining many philanthropic institutions.

JAMES A. SPEYER

JAMES SPEYER, the great New York International banker, who is known as "The Man Without a Country," says the wisest thing he ever did was to choose New York for his birthplace. He was educated in Frankfort and thereafter received training in international banking in both London and Paris as well as in the historic banking house of the Speyers, in his ancestral town. The founder of the Speyer banking house in the United States was Phillip Speyer, who came to New York in 1837. He was later joined by his brother, Gustavus, who was the father of James Speyer. The house of Phillip Speyer & Co. unhesitatingly gave their sympathy to the North in the Civil War. In this respect they were unlike the Rothschilds. They rendered invaluable service in opening up a market for United States Government Bonds in Europe and in this way they showed their patriotism, yet they made a great profit for themselves as well as for European investors. Allowing for the depreciated currency, the firm of Phillip Speyer & Co. purchased bonds as low as 36 on the dollar and these bonds were later redeemed at par.

When he was twenty-three James Speyer set sail for America, joined Speyer & Co. in New York City, and soon became its head. It had been taken for granted that James would remain at home, where his parents were, but he made up his mind that he preferred the United States, following the example of his father, who had been a loyal American up to his death.

The Speyers began to make a reputation in Frankfort-on-the-Main generations ago. The family tree sends its rich roots deep. James Speyer's great grandfather was quite a notable in the 17th century and in the 18th century it is recorded that the Imperial Court banker, Isaac Michael Speyer, was seized by the French as a hostage. This was done to guarantee the payment of a war tax levied on the people of the free city of

Frankfort-on-the-Main. Before the founding of the American Republic the Speyers caught the philanthropic spirit. There are still charitable establishments in Frankfort-on-the-Main which were named after the Speyers of the 18th century. Their long record of charitable gifts has not been broken.

Not long ago members of the Speyer family left several million dollars for educational and scientific purposes. But James Speyer protests against being called a philanthropist. He is sure that there are millions of men and women in this country that are doing as much, and some of them perhaps more, and he honors them for it. That they get satisfaction out of it he has no doubt.

The outstanding characteristic of James Speyer is his democratic spirit. He is the very incarnation of democracy. He hates anything which makes any pretense to autocracy. His vision is broad enough to see both sides of a question and his inborn sense of justice has impelled him to come out boldly for what he has seen to be right and fair. He was not in favor of the railroads fighting for Federal supervision when the Interstate Commerce Commission was being formed. He believed that the whole country would benefit by both Postal Savings Banks and the Parcel Post. Events have justified the wisdom of his stand. His championship of labor has at times shocked the sensibilities of some of the Wall Street magnates. Some of the leaders in those ranks have frowned down on his outspoken attitude in this respect. But he did not speak out of any cheap desire to pose as a friend of labor. He speaks with deep insight and unusual foresight. He can gauge human nature better than some of his fellows. In 1915 he did military duty at Plattsburg as a plain trooper, and he believes in universal military service.

Mr. Speyer's conception of a banker is that of a semi-public servant. He believes in publicity, but does not believe that it by itself is enough. He believes in drawing the masses and the classes, so-called, together, each learning the other's point-of-view.

He blames New York financiers for keeping themselves too much apart from the people. He believes that railroad financiers should make it a point to visit the country which their roads serve. Mr. Speyer in talking to a lot of Baltimore & Ohio directors in Baltimore a few years ago said that bankers living in New York are in a measure provincial because they do not travel enough and do not see enough for themselves. There is ignorance among New Yorkers about other parts of the country. By the same token exists an erroneous impression about New York. When Americans outside of New York know New Yorkers better by personal acquaintance they will find out that the latter are not to be feared; that they have the same aspirations, the same hearts and feeling as every other American has.

When James Speyer came back to New York the large financiers of Wall Street took little or no note of him. They looked on him as merely the son of a rich man, under no necessity to work to add to his family's fortune. They particularly looked on him as being not familiar with the intricacies of American finance. In those days Collis P. Huntington and James J. Hill were the great railroad builders. The principal figures in the financial limelight were J. P. Morgan and Jay Gould. Hill and Huntington at that time had no general financial backing. Mr. Speyer one morning made a call upon the veteran Jay Gould, who was quite taken aback by the approach of one who looked to him to be a mere boy. But Speyer had drawn up a plan for the reorganization of the St. Louis & Southwestern, which was then in poor condition. His house, Speyer & Co., had been selected as members of a committee to protect the first mortgage bonds, which were then held in Germany. Mr. Gould held the junior securities. Speyer introduced himself to Gould, and the result of it all was that Speyer's plans were finally taken and adopted, on terms which were satisfactory to the young banker's friends and clients.

Another move of this financial genius was in connection with Collis P. Huntington. Mr. Huntington was quick to realize the young man's aggressiveness and industry. Young Speyer had come to the conclusion that Huntington personally and his roads, the Southern Pacific and Central Pacific, were entitled to continued financial and moral support. The two men worked together, became close friends and co-workers and Amsterdam and London affiliations were created. Money was brought over from Germany and a solid financial footing was created for the Huntington properties with which to meet their indebtedness in full. At that time the Southern Pacific was trying to compromise its debt to the Government. The financing by which the road met the debt was regarded as being little short of a miracle.

The Government had placed William McKinley, who later became president, at the head of a commission to settle these railroad debts. James Speyer was quick to assure McKinley that the Central Pacific would arrange a full settlement. This arrangement was to be taken up on America and Europe and it was necessary to get the signature of the President by a certain time. Not until the last moment was the paper ready for this momentous signature. James Speyer attended to the matter. He saw that everything was closed up and started for Washington himself, taking no chances of things going wrong. His train was delayed by a snowstorm for several hours and he had to overcome serious difficulties in reaching the Capitol, but he got there in the nick of time.

Speyer & Co. soon became recognized as one of the three or four most influential international banking firms in the country. This was due to the initiative of James Speyer. Mr. Speyer always united judgment to his courage. He commanded vast sources of foreign capital, which enabled him to do much for the development of American transportation facilities.

Speyer & Co. in 1896, when Baltimore & Ohio bonds defaulted, introduced a new quality into American banking by offering to buy the coupons on an issue they had sold. This example has since been followed by other high-grade issuing houses. Speyer & Co. notwithstanding the misfortune that overtook the American railroads, and placed one-sixth of the country's mileage into bankruptcy, never left a stone unturned to safeguard the interests of those who had entrusted them with investment funds. Its motto has always been to stand by its clients.

When the St. Louis and Southwestern Railroad went into the bankruptcy courts, Mr. Speyer abandoned his annual holiday and personally appeared before the Missouri Railroad

Commission and saw to it that investors in that road received fair treatment. The result was that his bondholders did not lose out. Whenever the occasion arose the Speyers were eager to do their share in placing the facts before the public and its representatives. In the Rock Island case when certain aspersions were cast upon actions of Speyer & Co. James Speyer went direct to Washington, and there insisted upon appearing before the Interstate Commerce Commission to meet all the slanders concerning his firm.

No matter how powerful his antagonists may be, when the interests of his clients are at stake he is not afraid to fight them. He does not hold back because of any false ideas of dignity. He believes it is unwise for those in a position of trust not to repel unjust attacks and invasions. From the time he was a young man he has taken his responsibilities and duties very seriously, yet cheerfully and with a proper number of pointed witticisms.

Speyer & Co. are called international bankers in the fullest sense of the term. In Ecuador and Bolivia; in Mexico; in the Phillipines; in Cuba; in all quarters of the globe may be seen traces of their work. Its South American projects have called on them to take a lead in financing more than once Under Diaz and Lamantour this house has helped with many millions of dollars to build railroads into that potentially rich country. When Mr. Roosevelt was President and Mr. Taft Secretary of War this house financed the Phillipine Railway construction in 1906 and afterwards carried through the sale of these railroads to the Phillipine Government. When it became its part to establish the credit of the Republic of Cuba this house took the first $35,000,000.

Now the Speyer & Co. banking interests dealing with Mexico's external bond issue, particularly those floated in the American market, have joined hands with the International Committee on Banking in Mexico.

Thomas W. Lamont, chairman of the American group of the International Committee, says: "The International Committee of Bankers on Mexico has invited James Speyer, of Speyer & Co., and R. G. Hutchins, Jr., of Hallgarten & Co., to become members of the American section, and these gentlemen have been duly elected upon the committee. The British section has been enlarged by election of Frank C. Tiarks, of the banking house of J. Henry Schroder & Co., of London.

It was with capital raised by the Speyers that London's underground railway system has been revolutionized. Sir Edgar Speyer, brother of the American head of the family, was the power behind the colossal undertaking and became chairman of the committee in charge. The problem arose of finding a practical man of calibre to handle so extensive a project. James Speyer cabled that he, through one of his Cleveland friends, knew the right man. This man was finally accepted by the London directors. He was none other than Albert Stanley, formerly manager of the New Jersey Public Service Corporation, who is now Sir Albert Stanley and was one of Lloyd George's right-hand aides as Minister of Commerce and President of the Board of Trade in the British Cabinet.

Mr. Speyer was happily united in marriage to Miss Ellin L. Lowery, who has always been his fond admirer and helpmate. Miss Lowery at one time conducted a tea-room in New York. She was a niece of the celebrated wit, William R. Travers. She came of old American stock and she won her husband by her wit and charm. Mrs. Speyer has shone in social service. In helping to organize working girls clubs she has borne a foremost part and she contributes not only her money, but her time and energy, to divers worthy causes wherever they may be found. She became the president of the New York Women's League for Animals. She was instrumental in founding an Animal Hospital.

The first practical plan in this country to connect settlement work with teaching was presented in Teacher's College, 1902, in the formation of the Speyer School, which also made the schoolhouse the social center of its neighborhood. But before that, in 1891, the University Settlement Society was formed as the very first settlement, established in his country. And in 1894 this work led to the organization of the Providence Society. By raising the first $100,000 and becoming its president Mr. Speyer laid the first foundation of this society, which made him its president. Mr. Speyer provided funds a few years ago to maintain the American Institute in Berlin to act as guides for American students in Germany and German students in the United States. Prior to that he founded the Roosevelt Exchange of Professorships with Germany, which was four or five years prior to the war, with a view to further international harmony.

The Museum of Safety, the National Civic Federation, the Economic Club, the latter of which he was president, all prompted by the desire to bring labor and capital together, have claimed his zeal and attention. He has been a great factor in the work of enabling labor and capital to get a more adequate conception of each other.

For the last 25 years Mr. Speyer has held no political office, but has preferred to devote much of his time to educational and other similar work. Mr. and Mrs. Speyer at their modest but beautifully situated country home, near Scarborough-on-the-Hudson, entertain groups of working girls, educational associations and others active in the service of humanity.

Mr. Speyer is a non-partisan. He is independent in his actions and affiliations. By the same token, in his charities, Mr. Speyer knows no difference in race, creed or color. He was vice-president of the German-American Reform Union in the Cleveland campaign of 1892. In 1898 he was a Chamber of Commerce delegate to the Indianapolis Sound Money Conference. He was a charter member of the Citizens' Union. He was a member of the Board of Education in New York City under Mayor Strong, and an active member of the Executive Committee which routed Tammany Hall at that time.

To get a position in the Speyer office is the desire of about half of the workers in the financial district of New York. Speyer & Co. was the first banking house in New York to adopt a pension fund for its employes. The Speyer Building is an architectural gem, being the first low office building in New York and modeled after the old Pandolphini Palace in Florence.

In the Speyer home on Fifth Avenue among a multitude of fine paintings is a portrait of Mr. Speyer, painted by an East Side boy who was in the art class of the Eldridge University Settlement. This portrait was presented to Mr. Speyer in commemoration of the completion of twenty years service in behalf of charitable institutions.

Mr. Speyer is an optimist. He believes in his fellow-men and in the future of his country. He played a courageous part in the firm of Speyer & Co. in supplying Collis P. Huntington with many millions of dollars to develop our Western empire by traversing it with the Central Pacific and Southern Pacific railroads. He had confidence in its first strength and poured capital into the development of this youthful country. The Speyers have maintained a reputation for more than a century for protecting their clients.

AUGUST BELMONT

The name of Belmont is closely inter-related with that of Rothschild. These two names are veritable synonyms of banks and banking. And the present head of the Belmont family, August, is worthy of the prestige his great name carried both here and abroad.

AUGUST BELMONT

AUGUST BELMONT, banker, was born in New York on February 18, 1853, a son of a prominent banker of the same name. The name of August Belmont naturally suggests the Rothschilds and the subject of banks and bankers, a phase of activity which has done more to advance the interests of civilization than it has been given credit for.

If one could imagine the entire obliteration of the modern system of banking, it would make clear what a vast benefit to trade and commerce has been the adoption of bills of exchange and the general modus operandi of the banking business. The substitution of a piece of paper representing the value of the solid metal has revolutionized the commerce of the world, and, strangely enough, this great benefit originally arose out of the needs arising out of a great injustice.

August Belmont achieved the highest credit rating of any banker in the United States. His bills were always in demand and commanded a little more than those of anyone else. The father of the present August Belmont came to New York comparatively poor, but gathered together millions. As a representative of the Rothschilds in this country he had for many years held a high position in the financial world. He had managed the business of that historic house here with prudence, exceptional astuteness and sagacity. Contrast his success in this country with the experience of Americans abroad. George Peabody and J. S. Morgan, his successors, may seem to be exceptions to the rule, but they did not win such social and business success as has been achieved by Mr. Belmont, Senior, in this country, and the fact remains that no American could have been so successful abroad as he has been in the United States. Europe does not afford the opportunities that so often arise here. This is the country of great and frequent opportunities; there is a large and inviting field for enterprise and business skill, although, of course, all cannot win such a position in the financial world as that occupied by the Belmonts, who were recognized among the wealthy as well as the most honored of America's adopted citizens.

Many years ago there was residing in the picturesque little town of Atzey, in Germany, a family by the name of Schoonberg, which means beautiful hill. For some unexplained reason this historical name became gallicised by some of the modern branches of the family, who preferred the smoother accent of the French translation, Belmont, meaning the same thing as Schoonberg. To this branch of the original Schoonberg family belongs the famous banker of New York, the late August Belmont. He was born in the Rhenish Palatine and when a young man, in 1837, was attached to the great financial house of the Rothschilds in Europe and about that time there arose an occasion for some one to represent the house in America.

The individual originally selected for this service was detained by illness, and it was necessary to cast about for someone to supply his place. August Belmont was thought of, his youth only standing in the way, but he had already proven himself a clear-headed, shrewd, reliable young man. There was no time to lose, and suitable agents were not to be found easily. His father had been a man in well-to-do circumstances, who had sent him, when he was 13 years old, to become an apprentice clerk to the Rothschilds in their Frankfort house. According to the German custom, he received no pay; he was compensated by the opportunity of learning the banking business and he made rapid progress. Before he was 21 he was selected to accompany one of the Rothschilds to Italy and France as secretary. In 1837 the chief of the house sent for him. "We want someone to go to New York immediately; will you go, and if so, when can you be ready?"

"I can be ready and will go tomorrow," promptly answered young Belmont. This seemed to him an opening not to be slighted, and an opportunity that might never occur again. He recognized the promising field in this country for profitable investment and was appointed the Rothschild correspondent in America and general representative. Therefore, he lost no time, but got together the few articles necessary for the voyage and early next morning presented himself for final orders.

Once located in New York, Mr. Belmont soon became identified with its material and political affairs. In 1844 he was appointed Consul-General for Austria and held the position for five years, relinquishing it because of his personal friendship for Louis Kossuth and his sympathy with Hungary in the quarrel with Austria. In 1849 Mr. Belmont married the niece of Commodore Perry, the hero of Lake Erie, a beautiful and accomplished lady, who did much to enhance his social position. In 1853 he was appointed Minister to the Hague by President Pierce and served four years. He identified himself with the Democratic party, to which he adhered through the long depression of its fortunes. believing in its future through every fluctuation of its course. He served for several years as chairman of the National Committee.

In 1869 he was chairman of the last National Democratic Convention held in the South, at Charleston, South Carolina. In 1876 Mr. Belmont was a strong supporter of Samuel J. Tilden for the Presidency. After that Mr. Belmont did not follow politics quite so closely as formerly, one reason, perhaps being that his son, Perry Belmont, was coming to the front as a politican. This young man, who had already made his mark in local politics, was elected to Congress from the First Congressional District of the State of New York in November, 1882. In the next Congress he soon attracted general attention because of his tilt with Mr. Blaine on the matter of the Peruvian investigation, throwing himself into the breach against the popular Senator.

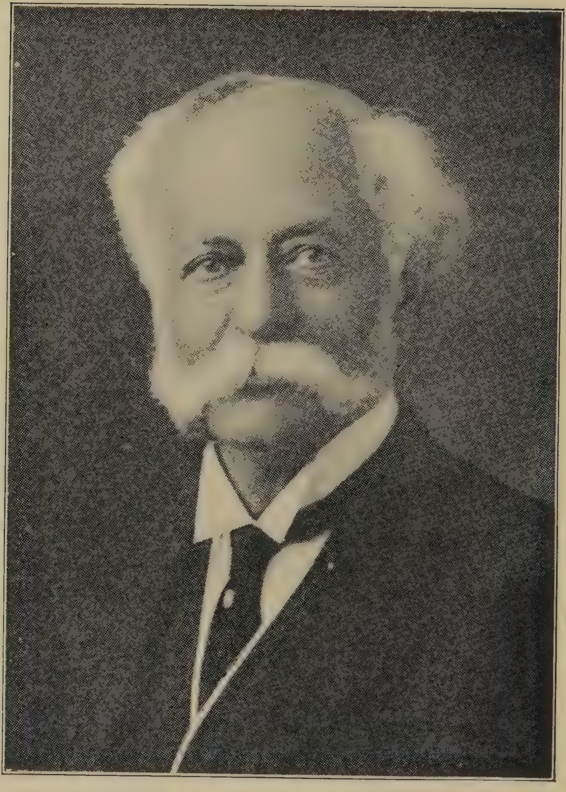
Bankers are of course, subject to a great many applications for money for purposes which can by no possibility render them a return commensurate with the risk. People with all sort of wild projects have at times applied to Mr. Belmont for aid. Inventors with impractical machines, speculators, with the most flimsy securities, obscure little towns or villages, emulous of imitating richer neighbors in building some public works, come to the banker fully expecting to go away with their pockets filled with gold and their heads crowned with glory at their successful negotiations.

August Belmont, pere, was under the medium height, rather stout, with iron-grey side whiskers, round German features and keen dark eyes, and among the strong characteristics of the man was his marked courtesy and knightly courage. As a financier he had but few equals and no superior, and to his politic and conservative management, as well as his foresight and intimate knowledge of affairs, was due the American prestige and success of the Rothschilds. His house on Fifth Avenue, with its splendid art treasures, was worth a large fortune in itself. He was a connoisseur on works of art and had one of the finest private collections of pictures in the world. For many years he had a princely residence at Newport and a stock farm at Babylon, Long Island. He was one of the founders of the Manhattan Club. Through his marriage his children are related to Commodore Oliver Hazard Perry, who made his mark in the Eastern seas and on Japanese waters.

Mr. Belmont's office was not on Wall Street, but close to it, on Nassau Street, where that street debouches into Wall, opposite Broad, and almost within sound of the roar of the Stock Exchange; his winter residence was on Fifth Avenue, but his summer residence was less fixed, Saratoga, Newport, etc., making claims upon him. He had a wonderful stock farm on Long Island. This farm, with the stock, was estimated to be worth a quarter of a million of dollars. Near it, at Hempstead, his son August, the subject of this sketch, has a residence. He keeps a stable of racing horses and polo ponies and is a prominent member of the Fox-Hunting Association, known as the "Meadowbrook Hunt."

August Belmont has succeeded to the head of the firm of August Belmont & Co. bankers, the New York representatives of the Rothschilds. He has served as president of the Interborough Rapid Transit and other corporations. In sporting circles he has also served as the president of the Coney Island Jockey Club and other turf organizations, and keeps up a large racing stable. He is also a director in a number of banks, railways and other companies, and politically, like his father, is a leading Democrat. He is a member of many clubs and associations. He graduated from Harvard in 1875, and has a New York residence at 44 East 34th Street but lives much of the year at his country home at Hempstead, Long Island. He is well known, too, as the financial director of the Belmont Tunnel, across the East River, between New York and Long Island City. He served as chairman of the board of directors of the Interborough Rapid Transit Co. He is officer and director of many large railways, banking, manufacturing and other corporations.

The house of Rothschild has always been ably represented in this country by Messrs. August Belmont & Co. This fact is shown in that the business has passed from sire to son and is still prospering. By the skilful employment of their connections they have obtained unexampled opportunities of acquiring an accurate knowledge of the condition of the financial markets and now practically embrace the whole of Europe and America within their financial network. The house has grown in solidity and influence with every succeeding generation. The Rothschild millions are now freely invested in all kinds of American enterprises. The Cape Cod canal was dug with Rothschild money and the best traditions of the house are sustained by the present generation of Belmonts.



HENRY JOHN HEINZ

Henry John Heinz was a gentleman. No greater tribute can be paid to him. He built up an enormous business in the condiment industry, starting with one product from the family garden, expanding until his famous trademark ''57 varieties'' became known throughout the world. He kept expanding his business until the Heinz factories now preserve over 225 varieties of relishes.

HENRY J. HEINZ

THERE have been many in the business world who have achieved success but Henry J. Heinz achieved success in such a manner that even the most strait-laced moralist and student of ethics can find nothing about his career to condemn. Heinz placed God, his country, and his home above his business. He sincerely wanted to be a help to his fellow men more than he wanted to be a giant of industry.

His parents were thoughtful and very religious. They were unusually fond of their son Henry and when he was but a child they saw wonderful possibilities in store for him. Consequently he was given a good education, an excellent bringing up, and an opportunity to follow up the line of work in which he showed particular interest, — gardening.

For some time he helped his father, who made bricks, until he observed that there was really more produce in the little four acre family garden than they could use themselves. He suggested that he might be able to sell the surplus in the neighborhood. With his father's consent he started out on his first business venture. In one summer alone, before he had reached the age of seventeen, he sold over $2,000 of garden-truck from the Heinz farm.

He proved that he possessed the shrewd business ability of his ancestors and had an unlimited power to make friends. He was so successful with his small marketing business that his parents relinquished their fond hopes and wishes of some day seeing their son in the ministry. They sent him to a business college rather than to a theological school. There he studied hard, always keeping in mind the fact that he might learn something to help the folks "back home." He specialized particularly in commercial accounting and sure enough, when he went back to the brickyard he became his father's bookkeeper and assistant. He introduced new methods by which they could make brick in the winter as well as the summer.

His father was justly proud and pleased and gave him a partnership in the business to show his appreciation.

Henry thought that the opportunities in his father's business were not sufficient for him so he left, with his father's consent and formed a partnership in Beaver Falls in a business similar to that of his father's.

When he had worked on the farm, and met with such success as a salesman he had had visions of a more extensive market for the produce. This idea was constantly in the back of his mind so he finally left brick-making and with L. C. Noble opened up a small packing and preserving house in one room of a small building in Sharpsburg, Pa. Heinze realized the value of concentrated effort so he at first dealt in horseradish only. All the raw product was taken from the little family garden and treated in a new way and bottled. Heinz himself used to peddle this horseradish carrying his stock in a basket. The business grew and he acquired a wheel-barrow to help him distribute the relish which met with such popularity. Finally he had to get a horse and wagon.

He added different lines of pickles, jams, and jellies as his profits warranted. E. J. Noble was added to the partnership and the business was moved to a large four story building in Pittsburgh. The Nobles retired from the firm after a very successful three years, and Henry Heinz in 1875 sold an interest to his brother, John H., and his cousin Frederick. In 1882 vinegar was added to the other relishes sold, and a vinegar plant was established. The business kept growing and in 1905 was incorporated with Henry John Heinz as president.

Through all the years of development Mr. Heinz insisted on absolute cleanliness throughout the plant. He saw the ideas of his youth bear fruit, and his plans and business ambitions always kept well ahead of the rapidly growing industry. From the first he wanted to give the public tasty relishes, well preserved and packed, at a reasonable price. Though he had many chances to make more by charging higher rates he never deviated from this underlying principle.

The Heinz pickling industry today requires the services of over 50,000 workers. Over 100,000 acres are used to grow the products they preserve. There are over 4,000 employes at the main plant; 16 branch factories, 22 acres of floor space, 71 salting houses, 45 distributing centers, and 400 salesmen, scattered in America, Europe, Australia, and Africa. The famous trademark, those distinctive figures "57" conveys the idea to the public that Heinz makes 57 varieties of product. People have asked in wonderment, "Do you suppose they really make that many kinds of product?" And the answer is that the 57 varieties has grown until it now reaches over 225.

Mr. Heinz was a firm believer in the power of the printed word. Throughout his establishment he placed mottoes of the highest inspirational nature. He was found of quoting these and was very careful to "practice what he preached." It is said that his favorite maxim was "Make all you can honestly; save all you can prudently; give all you can wisely."

Certainly his life history shows that he lived up to the spirit of this epigram. He was pre-eminently honest, and never entered any business deal that hinted at being within the law, but not quite up to the Golden Rule. He was careful and shrewd with his wealth; and he gave thousands to charitable and educational institutions. He was largely instrumental in founding and was one of the chief supporters of Kansas City University. His gifts to his employes are unusual, not because of their size, but because of the fact that their source was often unknown.

Mr. Heinz was very happily married in 1869 to Miss Sallie Sloan Young. His wife was vivacious, religious, and established for him a home that was an added inspiration. They had four children, one daughter, and three sons who are actively engaged in the business. When his son Howard was at Yale University he became interested in Boys' Club work and upon his return home received the hearty cooperation of his father in erecting a special building with modern equipment to carry on this work.

Mr. Heinz left many memorials of his greatness, his magnanimity, and his kindness. Of these the most conspicuous is the business he built up, the philanthropic institutions he established there, and the wonderful example he made of his own life and work to inspire those who worked for him.

Life insurance policies are given outright to any employee who has been with the company for three years. The face of the policy grows from $250 at its inception to $1,000, depending on the length of service of the worker. These policies have no red-tape attached and do not protect either the company or the employe, but are protection for the dependent the employe has chosen as his beneficiary.

Heinz established welfare work on a firm footing long before it came into vogue as a sound, paying business proposition for industrial concerns to adopt. He was animated not by the quest of the almighty dollar but by the thoughtfulness and generosity of his nature whch was his outstanding characteristic. Of course he realized that welfare work increases the efficiency of his force thereby increases the output, but by no means did he put it on the basis of dollars and cents alone. He had erected a roof-garden, and under it a library, gymnasium, auditorium, picture-gallery, dance-hall, baths, swimming pool, educational classes, a hospital, and other projects of a similar nature. Such organizations as Dockstader's Minstrels are taken to the Heinz plant to give a special performance whenever they come to town.

These activities and benefits are shared by friends as well as by employes. The customary notice "For Employes Only" is not seen in the welfare work of this great man. The homes of the employes are made brighter and happier by the philanthropy of the Heinz institution. Friends are always welcome at all amusement features. The Dental Department not only cares for the teeth of the employes but it gives instruction in oral hygiene to their families.

Heinz wanted to treat his co-workers fairly and squarely, and he did. In the matter of promotions, which has caused no little trouble in other plants, the existing atmosphere at the Heinz institution is reported by an employe who said, "The only man around here who has a better job than I have is the fellow who has been here longer."

A rather unusual business rule was adopted early in the life of the industry by Mr. Heinz which was adhered to always, namely "no one in my employ shall ever have his wages reduced."

The wonderful organization which he built up had as its basis his own personality. He was respected and loved by those who worked for him. He was always happy to talk, to work, or to play with even the commonest laborer. He knew many by name, and whenever he saw a new face when he went through the plant he made it a point to make the new man feel at home. He would always make the advances. This practice was so well known, and so highly thought of that it is the affectionate jest of many of the men to take one another by the arm and say imitatingly, "Young man, how long have you been with us?" Yet this is not done in the spirit of mockery, but is done with all due respect and pride in the fact that their employer was genuinely interested in them.

At Christmas time Heinz remembered every one of his employes. He originated the happy custom of giving to the parents in his employ a silver spoon, whenever the stork visits their household. The sick were visited by someone that he had sent, if he was unable to go himself. Weddings were made merrier, and the sadness of funerals soothed by the big-heartedness of the man. He relieved those in financial distress very quietly, frequently keeping his name out of the transaction entirely.

Years before his death Mr. Heinz said, "I am no longer trying to make money. What I am interested in now is to make more success." And this was the thought he brought home at all the salesmen's conventions. He did not talk of sales records, or quote prices, or complain about expenses. Instead he emphasized character above everything else. He once said, "Rather a man with 50 per cent ability and 100 per cent character than a man with 100 per cent ability and 50 per cent character." In the sales rooms there is no motto to the effect that sales must be increased 100 per cent. Instead he had framed and placed there the quotation, "The ruling principle of our business must be to secure the permanent satisfaction of the consumer and the full confidence of the trade."

At different times in his career Mr. Heinz was a bank director, a real estate man, and an important power in the State Sabbath School Association. In all these projects, as well as in his particular business, those who came in contact with him profited by his suggestion and were taught by his example.

His suggestion and help is always given in such a courteous manner that it does not offend or irritate the man he is trying to help. Specific instances are recorded that bear repeating. Not once, but several times, he got out of his car jumped into the excavation that was being dug for a new warehouse, and showed a foregn laborer a more efficient way of handling the pick and shovel. Many times he relieved the man at the information desk in the main office, where salesmen and visitors are received. He would take the cards of the salesmen, show callers around the plant, do the simplest routine work without the slightest air of self-consciousness. Afterwards he would politely show the deskman just how his tasks might be made easier and more enjoyable. He would interrupt a conference in order to show an office boy how to excuse himself politely if an occasion for apology for interrupting a conference again arose. And never did he leave the least spirit of resentment or embarrassment in the minds of those he was instructing.

This practice exemplified another of his maxims which was: "To do a common thing uncommonly well brings success."

He was interested in art and collected many treasures in his extensive travels. His chief hobbies in this line were old watches, ivory-carvings, pottery, and tapestries. For a long time he stored these in his home, but finally their number had increased to such an extent that he did not have adequate room for them all. Consequently he filled several rooms in the Carnegie Institute with the curios he had collected. Some of these were loaned while others were given outright. Among his gifts to the museum was a collection of several hundred watches, the oldest dating back to 1590, and including the timepieces owned at one time by notables throughout the entire globe. Another collection is that of ebony canes with carved ivory handles. These were at one time carried by the students at Heidelberg, and the carving indicates to what corps a student belonged.

The house of the pickle king was in Pittsburgh, a large and spacious mansion that was rich with costly and unique furnishings. The story is often told of the artist who painted for

Mr. Heinz a frieze of the library he was decorating.

"Whose portraits are they?" Mr. Heinz asked.

"Michelangelo, Savonarola, Moliere—"

"Stop," Heinz said with a smile, "But, my good man it just so happens that I'm an American. My tastes and my money are all American-made and I have every reason to be proud of my country. Now will you be so kind as to just efface those foreign dignitaries, and put in their places a few good American faces such as Longfellow's, Ben Franklin's, Whittier's and the like. It would please me much better."

Approximately 50,000 visitors come to the Heinz plant annually, to see the model working conditions, to try to grasp "that something"—the intangible atmosphere of good fellowship—that Mr. Heinz through his efforts and wonderful personality built up. Those outside the plant who are privileged to attend some of the gatherings of the workers, are astounded at the spontaneity and the genuine sincerity with which the speakers pay tribute to their leader. He was dearly loved by many of the employes. Once, after he had been abroad, he was welcomed when he returned by a carefully planned reception that the factory girls had initiated. A burst of hundreds of American flags were waved from the windows as his automobile drove up to the plant. The employes took pride and pleasure in celebrating his birthday. They always gave him a token of some kind, and the happiness he always showed on such occasions gave to them the thrill that is found only in genuine appreciation.

An employe who went to his office or home to work or get instructions, rarely left without receiving a gift of some kind from Mr. Heinz as a memento of the visit. Sometimes he would give them a book, sometimes a painting or antique; and the greatest gift of all was his generous and thoughtful spirit.

When some problem was to be worked out; when some new venture was planned; the worker caught tremendous incentive and enthusiasm when they were told that what they were doing was "the wish of Mr. Heinz." They would do their very best, and the results were generally surprisingly successful.

It is quite natural that there has never been any general strike on the part of the Heinz employes. He realized what could be done to make the workers' task lighter and pleasanter, and he did his best to do it. The plant to him not an endless tangle of machine like humans, it was a great big happy family.

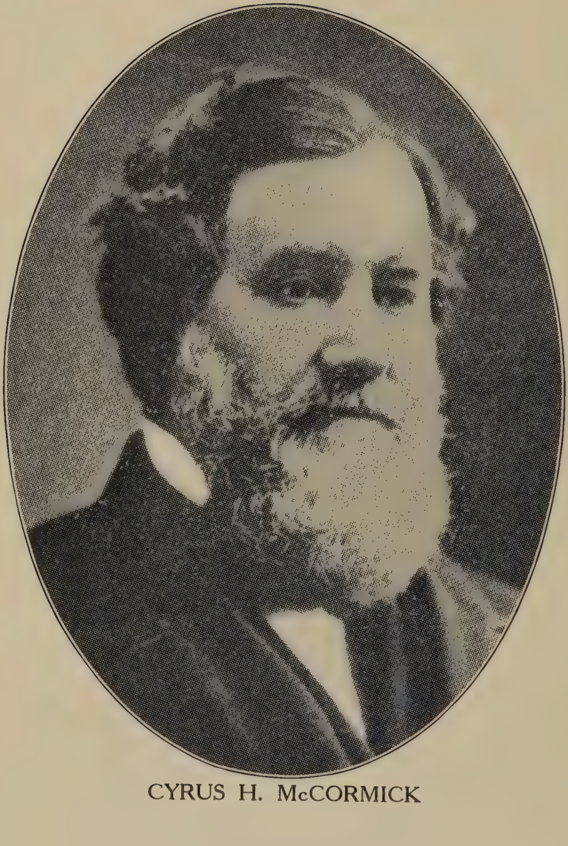
Another of the big business principles he put into practice and found very successful was that the organization must always be self-perpetuating. Everyone must have an understudy, and at the same time be understudying someone other than himself or herself. Through such a system, which provided amply for expansion, material for high salaried positions was always available without going afield to pick a man for the job. Heinz wanted his employes to know that they had a future before them, he wanted them to stay with his concern and grow with it.

His teaching and philanthropic work was remarkable in itself, yet the outstanding fact is that it was all so well received. Industrial leaders throughout the country are fearful of the attitude which their business philanthropies so frequently develop. The resentment of patronage, and the simultaneous demand for more favors and privileges, is not at all uncommon in plants where welfare work has begun. But in the Heinz plant the encouragement, the hope of something better, that is predominant in the welfare work is appreciated by everyone, and is not accepted as being part of the advertising schedule of the "big boss."

Personally he was a generously built man with a most remarkable benevolent looking face, kindly eyes, a flowing mustache and side whiskers. He was active in business for over forty years and succumbed to pneumonia in 1919.

His philanthropies not only were distributed in this country but in Japan, China, and Korea. This was due to the fact that he visited these lands when he was chairman of a Sunday School Commission.

Henry John Heinz was a financial giant, a powerful force in the industrial world, — but he was more — he was a gentleman in the truest most literal sense of the word. He was a type that is scarce in our money-mad country. He has given to the world the largest pickling industry ever established and his produce is famous throughout the globe. The variety of his interests did not stop at the famous "57." He made money; he made pickles; but most important of all he made happiness for those with whom he was associated.



CYRUS H. McCORMICK

Cyrus Hall McCormick left a benefit to manwind in his harvestinp machine—which he not only perfected but manufactured and placed on the market. His father was likewise an inventor but never met with such marked success as did his justly famous son.

McCormick was liberal with the fortune he made, distributing it widely among church and other beneficent institutions. Yet he was never popular for he was ambitious to the extent that he insisted upon absolute domination. He was a hard man and fought hard to retain his domination.

CYRUS H. McCORMICK

CYRUS HALL McCORMICK, of whom it has been said: "He will live in grateful recollection of mankind as long as the reaping machine is employed gathering the harvest," was born on February 15, 1809, on the paternal farm in Rockbridge county, Virginia, in the Blue Ridge mountains, in a period of hard times and during the Indian and other wars. He was born on a farm at Walnut Grove, in a section which is now West Virginia, three days after Lincoln and grew up under conditions as hard as those which beset the Great Emancipator. His father, Robert McCormick, was of Scotch-Irish descent, a man of property in high standing and he ranked with some of the most prominent gentleman farmers of the State—Washington, Jefferson, Webster and Clay. His farm covered 1,800 acres and included grist mills, saw mills, smelting furnace, blacksmith shops, etc. Though his homestead was built of logs, it was commodious and well furnished, with parlor, mahogany furniture, carpets and books, for his father, Robert McCormick, was a cultured man.

The family came of Scotch Covenanter stock which had fought for religious liberty in Scotland and for political liberty here. Robert McCormick had a distinct genius in mechanics. He invented a rude hemp-brake and clover-huller and was experimenting on a reaper when Cyrus was born. Father and son were inseparable and made many a queer contrivance which failed to work and made them objects of ridicule.

This was in the days of Tecumseh, whose brawny braves were terrorizing the settlers—the days when the vast prairies of the West were roamed by buffalo—when Chicago was unknown and New York City was about the size of Mobile, Alabama. The West was a vast unfarmed stretch of wilderness, and what little farming there was, was done with primitive wooden tools—a wooden plow, the cycle, scythe and flail. After 1812, however, there was a large and increasing immigration into America of some of the best blood and brain and brawn of Great Britain, and a great demand for farm land set in.

It was in such times as these, when the Republic was still young, that the boy, Cyrus McCormick, lived. When he could, he attended school, but for the most part he worked on his father's farm, cut wood and weeded the garden before his breakfast.

Among the many American inventors there is not one who has done more to extend the intelligent culture of the soil, or has added so much to the wealth of the country, as Cyrus Hall McCormick. The immeasurable distance between the ancient emblem of the reaper—the simple sickle—and the wonderful machine that now makes "the bonanza farms" possible, typifies the immense progress of civilization over the half-savage hand-labor age.

The father, Robert McCormick, was also a Virginian, for he too was born in Rockbridge county. His wife, Mary Ann Hall, was a native of the neighboring county of Augusta, and she sprang from the same original stock as the McCormicks, both families being farmers in comfortable circumstances.

In Virginia, despite the advantages enjoyed by the McCormicks, the facilities for education were very limited. There were no public schools and private tutors were not in fashion with the farming population. Having bright, intelligent parents young McCormick learned much by reading. In later years he showed no marked deficiencies which indicated the lack of early education. He was not overworked, as poor boys often are on farms, but was taught to be industrious and careful, and to take a real interest in all the operations of the farm. His father had experimented with various improvements in agricultural implements, but had not succeeded in making them profitable. His son paid close attention to the best methods of transacting the manual labor on the place, and he very early realized that there was great need of better agricultural plows, reapers, and threshers. When only 15 he invented a grain cradle, which was successfully used on the farm. Cyrus had manifestly inherited his father's inventive genius. The elder was the patentee of several valuable machines, and from these the son obtained many hints which he utilized in his own inventions. The elder McCormick had invented a threshing machine. He also devised one for hemp-breaking, incorporating the principle of hydraulics in his motor.

Young Cyrus having found his cradle a practical success, next turned his attention to the construction of a hillside plow. This was patented in 1831, when the future hero of the wheat crops was only 22 years of age. This plow could be used either as a right or left-hand implement, and threw alternate furrows on the lower side of the slope. But though a great improvement upon the plows then in general use, it did not satisfy the inventor, and he soon set to work to improve upon his work, and two years later he was able to patent a very superior article known as the self-sharpening horizontal plow. This was a very serviceable invention, adaptable for plowing either hilly or level ground.

In the same year, the famous "reaper" was completed, though of course without the improvements now incorporated in it. From its first trial, several acres of oats were harvested with it. Next year it cut 60 acres of wheat. Slight defects were observed which were remedied, and in 1834 he applied for and obtained his first patent on it. Moving to Cincinnati, two years later, he obtained a second patent for certain improvements, and he then commenced to manufacture for the market.

From 1846 to 1848 his reaper was manufactured in Brockport, Monroe county, N. Y., the manufacturers paying the inventor a royalty on every reaper sold. Still additional improvements called for other patents and it was not until the close of 1849 that the McCormick reaper obtained that degree of perfection which enabled it to take the lead of all other reapers either here or abroad. In 1847 its inventor had moved to Chicago, realizing at that early day that the location of this railroad center was destined in the near future to take the lead in the commerce of the great Northwest. In 1848 only 700 of the reapers had been made and sold. In 1849 however, orders came in for 1,500, with prospects flowing in.

By 1850 there were 3,000 McCormick reapers in service in the wheat fields of America. The next year McCormick exhibited his machine in England and at the Crystal Palace Exhibition, which prompted the London "Times" to state that the Exposition was worth all it had cost if it had brought nothing else to England but the new American reaper. He won there the first prize and also the County Medal. In 1855 he went to Paris, where he not only won a Gold Medal but he succeeded in selling one of his reapers to the Emperor, Napoleon III. In 1862 he made his headquarters in London, from which center he conducted a vigorous selling campaign throughout Great Britain and the Continent.

Just as the farmers of the country were beginning to realize the boom which this machine was conferring upon the farming industry, McCormick was destined to lose the protection afforded by his patent, and was forced to enter into competition with a flood of rivals, not all of whom were either honest or honorable. Several of the patents incorporated in the reaper had been procured in the incipient stage of the invention, and had run out by lapse of time. It was small comfort to the inventor that the Patent Office officials refused to renew any of the patents for the reason that the reaper was of such great value to the public that its protection was against the public interest.

From a very early period after the final perfecting of the reaper, a whole flood of competitors was let loose. But Mr. McCormick was not dismayed; he only set himself the more resolutely to make the very best machines, and having a start on his unscrupulous rivals was enabled to keep it. In 1882 over 14,000 reapers were made and scattered over both hemispheres. Many of these harvesting machines were now supplemented with mowers, droppers, wire-binders and twine-binders, which grab and tie up the sheaves with a neatness, precision and despatch that almost looks magical. In 1859 the Hon. Reverdy Johnson, in an argument made before the Commissioner of Patents, stated that, from reliable statistics, Mr. McCormick's invention had, even at that time, contributed to the country an increased value of $55,000,000.

Practical tests and competitions had decided the supremacy of the McCormick machines over all others; wherever there is a successful farmer on a large scale there is found also a McCormick reaper. From the very first trial Mr. McCormick had never found a successful rival. Others had made reaping machines but they could not stand in competition with the McCormick product. The first competitive trial occured in 1843, when Obed Hussey's machine was introduced with great confidence at Richmond, Virginia. An account of this contest is given in another place in this article. From among the spectators a jury of judges was selected by the people, to decide upon the merits of the two reapers. Without hesitation, and to the entire satisfaction of the witnesses, the superiority was accorded to the McCormick.

During Mr. McCormick's earliest experiences, amusing incidents often occurred with people who had little or no faith in the "new-fangled machine." On one occasion a trial of his reaper was arranged to take place on what is known as Genesee Flat. Two neighboring farmers who thought that the cradles they were using were the acme of harvesting efficiency, hearing that the new cutter was in the lot, and with the utmost confidence that they could reap quicker and cleaner than any new-fashion machine, came to see the "failure," bringing their own cradles with them. They proposed to show the ambitious stranger what they could do. As they reached the fence, and saw the rapid pace at which the McCormick reaper was traveling, and doing its work far more efficiently than they had dreamed of, they quietly hid their cradles and silently slipped away.

When the Civil War broke out the 50,000 reapers in the field released 350,000 men for duty at the front. The world saw the United States support two armies in the field and still send grain abroad. By this time the McCormick Reaper Works at Chicago, the city's first great manufacturers, were producing more than 6,000 reapers a year. In 1871 production had risen to 10,000, but in that year the plant was destroyed in the great Chicago fire. The inventor was then 62 years old and had amassed $4,000,000. He thought seriously then of retiring and leaving the field to competitors. His wife, whose business sagacity had helped build up the enterprise and who was an official advisor of much importance, insisted on rebuilding at once. The works were soon restored, and in a year or two production had risen to nearly $15,000,000 as the result of Mr. McCormick's terriffic and tireless energy. He moulded men to his will with scarcely an effort, and dashed all difficulties and obstacles from his path.

McCormick worked so hard that now and then he became overpowered by fatigue at most inconvenient moments. Once, after a protracted spell of work, he came near missing a great business opportunity. He was always friendly and hospitable to inventors and he had made an appointment at his residence with a man named Withington, who had a self-binder invention. McCormick got home later than usual that night, extremely tired. Withington called that evening and just as he was beginning to get warmed up in his description of his really wonderful invention, Mr. McCormick's head nodded, and in a moment he was fast asleep. Withington became furious at what he imagined was deliberate effrontery and took the next train home. When McCormick woke up it was morning and he was greatly chagrined. So he sent one of his trusted men in hot haste to explain matters to Withington and bring him back to Chicago. He struck a bargain with him and was the first to manufacture his ingenious machine, which on a test near Elgin, Illinois, cut 50 acres of wheat, binding with its steel arms, every bundle and tieing it with wire, without a single hitch or failure. Each Withington Self-Binder saved the labor of at least 10 farm hands.

It was not long before Mr. McCormick had disposed of some 50,000 of the self-binders. He started a tremendous selling campaign. Then he substituted twine for wire, manufacturing the twine at his factory, by this time greatly enlarged.

Mr. McCormick had a dogged determination that was simply extraordinary. He was not the kind of man to submit supinely to any kind of injustice or brook any interference with what he considered his rights. He fought one case for example—his famous baggage case—in the courts for no less than 23 years, the Supreme Court of the United States finally awarding him $18,000 for nine trunks destroyed by fire on a railroad. So bitter was the fight that the railroad kept him waiting three years more before sending him a check. The original amount he asked for was $9,000; the interest increased it to $18,000.

His fight for his patent was even more extraordinary. It expired in 1848, and he sought to have it extended, the legal battle lasting until 1865. His request for an extension of his patent was, however, finally refused on the ground that it was of "too great public benefit to be controlled by any one individual."

A wonderful fight began, when, in 1865, he took legal action against certain manufacturers infringing his patents. He had William H. Seward, who was later Lincoln's Secretary of State, Senator Reverdy Johnson and E. N. Dickerson for his counsel. His opponents faced him in the courts with an array of legal talent of equal prominence. Their lawyers were Abraham Lincoln, Stephen A. Douglas, Lincoln's political rival, Edwin M. Stanton and three others.

It was a battle of master minds, and Stanton, in a wonderfully eloquent and convincing speech, won the verdict against McCormick. Lincoln earned his first fee—$1000—in this celebrated harvester case. When elected President Lincoln appointed Stanton his Secretary of War.

Too little honor has been paid to Cyrus Hall McCormick the inventor and first successful manufacturer of the reaper, although its value to the world can scarcely be reckoned second to that of the cotton gin. Eli Whitney gave cotton wealth to the Southern States and cheaper clothing to all the world. Cyrus Hall McCormick enormously increased and cheapened the world's supply of bread by making it possible to harvest the grain of millions of acres of land that had never been under proper cultivation.

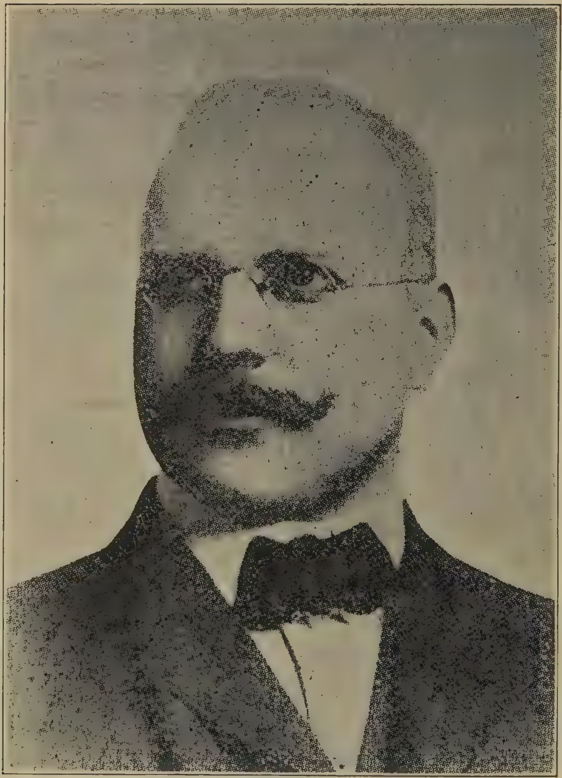
Personally McCormick was not popular. He had been brought up in a hard school and years of prosperity failed to soften him. Honest as the day, just, of tremendous force, he commanded respect and won the friendship of a few men as big as himself, but in his work he insisted on dominating. He wanted to make all the reapers. He said himself that he had to fight, or get out. He became the Reaper King and saw his machine push the frontier Westward year after year, the wheat yield always ten miles ahead of the railroad and beckoning the iron horse to come on for the golden grain.

The reaper was destined to lead the Western march of civilization. It was destined to put men upon the soil to transform the United States from a wheat importing to a wheat exporting nation and was to draw hundreds of millions of dollars to this country from the pockets of foreign buyers.

Today the International Harvester Co. has succeeded the McCormick Harvesting Machine Co. George W. Perkins, then a Morgan partner, when the matter of greater financing was broached to him by Cyrus H. McCormick, the second, having been active in bringing about the billion-dollar Steel Corporation the previous year, saw an opportunity to bring off another coup. Negotiations were promptly started with the leading harvester concerns. There were bitter rivalaries and jealousies to contend with, but the problem was solved by buying each company outright and leaving the bankers to organize the new corporation exactly as they saw fit, not only in nominating its capital, but in choosing its executives. The International Harvester Co. chose Cyrus H. McCormick, the son of Cyrus H. McCormick, the elder, as president, and confines its activities to manufacturing reapers and binders. It manufactures some thirty different machines for farmers.

Cyrus H. McCormick, the elder, died on May 13, 1884. Of his two brothers, who entered into business with him in 1850, William S. died in 1865; Leander J. became the vice-president of the McCormick Harvesting Machine Co. of Chicago, which position he held a few years.

In 1838 Mr. Cyrus H. McCormick married a daughter of the late Melzer Fowler, of Detroit. She was a great helpmate to him, for her business sagacity greatly helped her husband's enterprise. Their family consisted of three sons and two daughters. The family residence was for the greater part of the year in Chicago, but he had a country seat at Richfield Springs, New York, where the summer was usually spent. Like his Scotch ancestors, Mr. McCormick was a Presbyterian and was a liberal giver to that denomination, as well as many other charities. He was large-minded and liberal in his hospitalities.



WILLIAM E. COREY

William Ellis Corey grew up with Charles M. Schwab. They played together and worked together. They became identified with the same industry—steel. Yet the make up of Corey is exactly opposite that of Schwab.

Corey's life and success have been built on the principles of efficiency, production—and more production. The men in the mills were mere automatons to him. He thought very little of the human side of the business—but he got results!

WILLIAM E. COREY

WILLIAM ELLIS COREY, former president of the the United States Steel Corporation and one of Carnegie's "forty partners," was born in 1866, at Braddock, Pennsylvania. He was the son of a retired coal merchant. Corey had been a boyhood friend of Charles M. Schwab in Braddock, when Schwab was working in a grocery store and Corey was working on a coal tipple. Both got dollar-a-day jobs from the Carnegie Co. and worked up to be superintendents at 21. Both married Braddock girls. Both became armor-plate specialists. Both made reputations as "drivers" and "record-breakers." Both moved up from one presidency to another.

Young Corey decided early in life that his future career lay in steel. He went through the common schools of Braddock and is still recalled in scholastic circles of that town as a youngster with solid and useful attainments. He is not on record as having won any scholastic honors.

A solidly built boy of 16, Corey one day applied for employment at the offices of the Carnegie Co.

"What can you do?" was asked of him brusquely.

"Anything in the place, except sit at a desk," was the uncompromising reply.

The boy thereupon became one of the low-salaried employes in the laboratory of the Edgar Thomson Steel Works, the great steel rail plant. Not satisfied with the little he knew, young Corey took a course of business instruction at a commercial college and studied chemistry at home until he had mastered it.

Little by little this scientific knowledge began to count. "Who is that young fellow who seems to know all about formulas?" was asked concerning him more and more. The boy was justifying his ambition. At 21 he was made superintendent of the plate mill. Then, when Charles M. Schwab was elected president of the Homestead Co., he took charge at the Homestead works as Schwab's logical successor. And when Schwab became head of the United States Steel Corporation, Corey moved up another step on the ladder.

The personal equation however of the two men widely differed. Schwab, the last of the individualists of steel, ranked personalities first and the organization second. "Every business grows around a great individual," he said. Corey put the organization first and the individual second. To Schwab a man was "Bill" or "Joe." To Corey he was "235."

Schwab swayed his men by sentiment, by his contagious enthusiasm and by his personal knowledge of each man. Corey ruled by tireless supervision and his thorough knowledge of the workings of every department.

Schwab was brilliant, dramatic, impulsive. Corey was painstaking, methodical, exact. On one of the very few occasions when he was persuaded to talk for publication Corey said:

"The man who succeeds is the one with bulldog tenacity—who never gives up. He is the man who not only does what he is told but more."

Schwab loves men and the applause of men. Publicity stimulates him like wine. Corey is reserved, stern-faced, and has a non-magnetic personality.

Schwab is a man of many interests. Even his charities are unique. He has built at Loretto, his birthplace, a cathedral and a monument to Prince Gallitzin, the founder of the town. To Braddock he has given a church and to Homestead an industrial school. At Richmond Beach, New York, he has established schools in which crippled and deformed boys and girls are learning trades. To the tenement children of New York he gives a thousand dollars worth of toys as a Christmas present.

Schwab loves display. His New York place is rated on the tax list as the second highest in cost, Senator Clark's mansion being first. The value of its land and furnishings value is probably more than $5,000,000. Carnegie's austere residence is a model of simplicity when compared with Schwab's ornate pile of three-colored granite with its Gobelin tapestries, its music room and chapel, its Flemish smoking room, Louis Size drawing room, Henry Quatre library, Louis Quatorze dining room and Louis Trize breakfast room.

Where Corey lives, few know. In the old days, the quiet apartment hotel from which he stepped forth at 20 minutes past eight every week-day morning has not been uncovered to the public gaze. He may have his philanthropies, but they are never heard of. He has few interests, if any, outside of his office. As the Homestead roller once said: "Corey never knew anything except his own business." He had sunk himself, his personal likes and dislikes, in the depths of his work. He felt himself to be a fraction, rather than a unit. His corporation was an organism, like a human body, and he was the co-ordinating function of its life.

William E. Corey knew what it was to achieve distinction. He did not have it thrust upon him by any means, for he worked hard for every advancement he ever got. But he had reached the day when men in the steel business all over the world know his name and were talking about the things he had done. He invented a new method of treating armorplate, in order to increase its strength without increasing its weight, which was adopted by nearly all the Governments of Europe for armament.

Corey showed his executive ability when he prevented a strike at the Carnegie plant some 22 years ago. When the Amalgamated Iron & Steel Workers in other parts of the country rose in full force and quit work, Corey's men stood by him, and it was really the result of his efforts that the strike elsewhere proved a failure. The old workmen at the Homestead plant still speak with affection of him. They say he was a fair and just man, who never told one of them a falsehood, nor led them on to hope for that he was not going to fulfill.

"Logic is logic" to the steel business, as well as in the consideration of one-horse shays. When Charles M. Schwab, terminated his presidency of the Steel Trust, Corey was the man of all others to step into his place. This was not an easy task, for Charles M. Schwab was a man mighty in the steel business, a marvelous organizer, a great salesman and a great mental force. It was the general impression however that

Corey was fully capable of taking care of the presidency—and of himself also.

It is said that the workmen at Homestead and Braddock who had served under both men, when they learned that Schwab had resigned, expressed themselves as sorry to see "Charlie" go, but glad to see "Bill" succeed him.

It is not denied that as president of the corporation Mr. Corey occupied a much less conspicuous position than that held by Mr. Schwab. A new power had arisen in the person of Judge Elbert H. Gary, chairman of the executive committee of the corporation. His keen perspicacity and his tremendous force resulted in the judge being recognized as the active executive and financial head of the United States Steel Corporation, while Mr. Corey devoted his time to the manufacturing end. Corey passed much of the last two years of his term as president in Europe, although it was understood he was also a good deal of a factor in Wall Street. Judge Gary meanwhile had adopted the policy of letting the public know something about the business of the steel company.

After the tragic death of Captain Bill Jones of the Carnegie Co. one of the greatest steel-makers that ever lived, the heaviest burdens of that company fell on the shoulders of Schwab. It was Schwab who reconstructed the Homestead works from the debris of the great strike; who created the profitable armor-plate department; who originated the Saturday meeting of superintendents. His cheerful self-assurance was all-pervading; he accepted any responsibility that was offered. Enthusiasm he found was better than experience. Nothing daunted him. Had he been asked to reconstruct the Empire of Russia or to federate the South American Republics, he would have assented without hesitation:

"I'll attend to that next week."

Schwab's successful handling of the Homestead Steel Works after the great strike was his greatest and most lasting achievement. No steel-maker, before or since, has ever had to tackle so hard a job. When Schwab took hold of Homestead it was a failure. It was a $4,000,000-mistake. The men were not working at all. The machinery was not working properly. There was a rabble of 5,000 sullen, defeated workmen. Homestead has been called the Waterloo of organized labor.

It was this situation that was handed Schwab. But he cared no more for discouragements than a duck for a drizzle. He swung the great steel-mill into action by his "Hurrah, Boys!" He was sympathetic. He was always as quick as lightning to turn everything to his own advantage. He was never at a loss for a reason or an inducement and he was always fluent and plausible. In half a year the surly workmen were entirely won over by his invincible optimism and perseverance.

"Schwab is a genius in the management of the men and machinery," said Carnegie. "I never saw a man who could grasp new ideas so quickly."

Carnegie made Schwab president of the whole company as soon as he saw that he made good at Homestead. Not even Frick was equal to him in authority. This was one of the first instances in which a man, without absolutely any business experience, was placed in command over so great a corporation.

Corey was there to follow him. He was four years younger and he was a thorough American, for he was a descendant of Benijah Corey, who settled in America a hundred years ago.

William E. Corey was one of the heads at Homestead with Schwab and Frick. The violence that occurred at Homestead was practically predestinated by a series of circumstances outside and inside of the steel business. The day before the Homestead mills were closed, all the Carnegie properties were organized into the Carnegie Steel Co., capitalized at $20,000,000 — twice the previous capitalization. Yet it should be said that neither Carnegie, Frick, Schwab or Corey were unfair or oppressive as employers. "Carnegie was always the first to sign the scale," said a veteran unionist.

Another testified to Carnegie's generosity in the following language:

"There was not a mean bone in his body when it came to paying his men. His idea of retrenchment was not to order a reduction of wages, but to cut out middlemen, buy better machinery, and good managers. Most of the early iron and steel men were hard and close-fisted; but Carnegie was always both just and generous. In fact, his idea was that the workmen should receive all the profit of their work just as soon as they showed themselves competent to take charge of the business."

Carnegie had been an employer for 26 years and had never had a serious dispute with his men. He had a knack of going over the heads of walking delegates and reaching the rank and file. He was "The Little Boss." He knew hundreds of his workmen by name, and their affection for him was increased by his cheery friendliness.

When the strike broke out in Homestead, Carnegie was in Scotland and all his friends rejoiced that he was away. When he cabled that he would start for Pittsburg by the next steamer, they begged him to stay away.

As a keen man of business, Carnegie knew that it was foolish to hire Pinkertons and strikebreakers. Green hands are useless in a steel-mill and skilled men are scarce. Better wait six months than ruin the whole plant.

The Carnegie Co. swept past all its competitors because it laid hold of these new forces of the Nineteenth Century. It focused the most energy and the most intelligence upon its business. It paid the highest price for brains. When Carnegie found a competent man he was able to "grip him with hooks of steel." When he hired Schwab and Corey, Carnegie's scheme began of taking on partners until the number had grown to forty, who became millionaires with him by reason of the sale of the Carnegie works to the United States Steel Corporation. Thomas Morrison, a relative of Carnegie, became superintendent of the great Duquesne Works at 29 years of age, having started four years before as an ordinary machinist. His career was a brilliant one, and there is no one in Pittsburgh who ascribes his success to mere relationship with Carnegie. Carnegie knew man-values.

W. E. Corey went along with the United States Steel Corporation and continued with it until January 1, 1911, when he resigned as its president. At that time its Finance Committee gave him a generous tribute in the following words:

"After more than seven years of faithful service as president of the United States Steel Corporation, William E. Corey has tended his resignation to take effect at the pleasure of the board of directors. The resignation will be presented to the board for consideration and action in due time.

"The relations between Mr. Corey and the members of the board and with the Finance Committee, respectively, as well as all of the officers, of the United States Steel Corporation and subsidiary companies, have been most pleasant and agreeable. Mr. Corey severs his connection with a feeling of loyalty to and friendship for the corporation and all its interests, and takes with him the best wishes of all who are connected with the companies above referred to."

For a time there was a discussion as to what Mr. Corey's future career would be. This was ten years ago. Some said he was going to turn around and organize a rival to the Steel Trust; others said that he was seriously tempted to finance a great aeroplane combine; still others held that he was about to live in retirement in France. All these speculations as to his movements proved wrong.

The career of W. E. Corey has been remarkable even in this country of wonderful achievement, and in these days of splendid recompense. When Schwab was relieved from the presidency of the United States Steel Corporation, and the announcement was made that Corey was to succeed him, the outside world naturally asked for information about this successor. Corey had never been headlined in the newspapers, while Schwab's name was constantly appearing in black Gothic type in all the newspapers of the country. The average citizen did not know that for years Corey had been pressing close upon the heels of Schwab, succeeding him in one office after another.

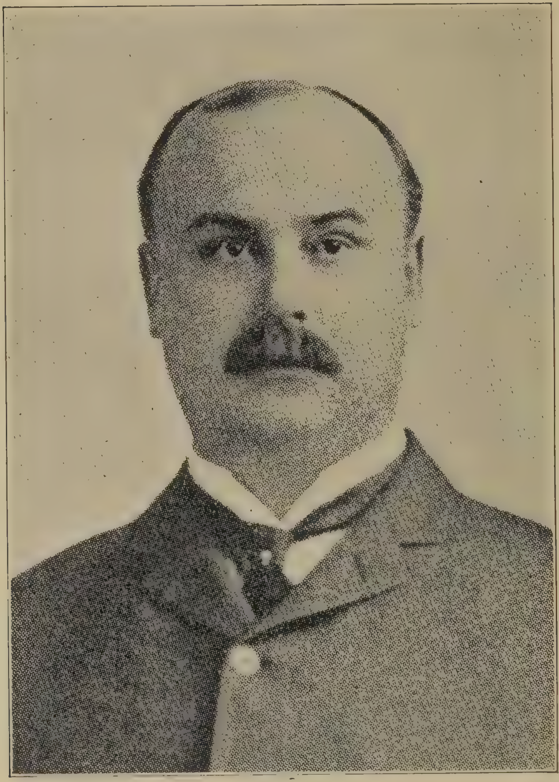
The public did not at that time know that Corey had succeeded Schwab as superintendent of the Carnegie Co.'s Homestead works, nor that he had followed Schwab as president of the Carnegie Co., nor that all along Schwab, in a way, marked out the trail for Corey to follow. It was soon appreciated, however, that Corey had brains and energy enough to make good.

Mr. Corey after relinquishing his interests in steel entered into copper mining. He was elected director of the Calumet & Arizona Mining Co., one of the best among the world's big copper mines, with a management that is excellent from the president of the company to the heads of its departments. In this, Mr. Corey also followed in the footsteps of Mr. Schwab. It will be recalled that Mr. Schwab in his earlier days made some sweeping ventures in mining in Nevada.

William E. Corey is a man who does things. He has proven the mettle that is in him. Some of the partners of Carnegie would have been wealthy had there been no Carnegie. Such men as Phipps, Frick, Schwab and Corey inevitably forge to the front in any set of circumstances. However, most of the "Carnegie Veterans," knew well that they owed their millions to the business leadership and generosity of their chief. Under most employers they would have begun and ended as employes. Many times they had been goaded almost to the point of resigning by their master. But they had persevered and been rewarded.

William E. Corey when he retired from the presidency of the United States Steel Corporation, was succeeded by James A. Farrell, who suited the late J. P. Morgan better than did Corey. After his association with certain copper interests under the control of the Rockefeller crowd and opposed to the Morgan-Guggenheim interests, he assumed command of the Midvale Steel & Ordnance Co. and has retained his connection with the independent steel interests ever since. At this writing, therefore, we have Schwab heading the Bethlehem-Lackawanna Steel merger, and in all probability Corey at the helm of the new North American Steel Corporation merger.

Corey cares but little for publicity for he is completely wrapped up in his work. Organization and efficiency mean more to him than any other factor. A worker himself, he saw to it that those under him worked. With his genius for keeping out of the limelight he is very little heard of in connection with his present activities. Corey is a man of commanding ability and ranks high in the technical and financial departments of the steel industry. What he is doing usually has far-reaching consequences.



DANIEL G. REID

Daniel Grey Reid started his business life as a bank clerk. Then he became interested in American Tin Plate, and, through this, his interests expanded until he helped to organize the United States Steel Corporation. Reid was an active operator in the stock market being connected with half a dozen market specialties, among these being the Tobacco Products Corporation.

Reid was fortunate in having as a personal, as well as business friend, the powerful John W. Gates, and nothing could adequately be written of Reid without including also mention of this spectacular financial genius. They were a combination which often made Wall Street wince.

DANIEL G. REID

DANIEL GRAY REID, one of the organizers of the American Tin Plate Co., afterwards merged with the United States Steel Corporation, a director and leading spirit in the Rock Island System, was born in Richmond, Indiana, August 1, 1858. Although denied the finishing touch of a college career, he received a good high school education in his native town, where he began business as a clerk in the Second National Bank at the early age of 16. Working his way through all the minor positions of the bank, he became its vice-president in 1895. Before the attainment of the latter position he became interested in the tin-plate industry at Elwood, Indiana, which was about the same time that John W. Gates was getting his start in the barbed wire industry.

Mr. Reid organized the American Tin Plate Co. in 1895. By this time he had become too big to stay in Richmond and so he went to Chicago, landing there in 1897 and two years later migrated to New York. Reid has figured as one of the principal organizers of the National Steel Co., of the American Steel Hook Co. and the American Sheet Steel Co., which culminated in his assistance being secured to organize the monster United States Steel Corporation in 1901, becoming a director and a member of its executive committee. He served on the board of the Chicago, Rock Island & Pacific Railway and other Rock Island lines as well as the Chicago & Alton and other railways. He has always been regarded as the dominating factor in Rock Island affairs. He is a director of a number of the principal banks and trust companies of New York and also the Continental Insurance Co.

Daniel Gray Reid has been one of the biggest operators in the stock market for many years. As above stated, he was prominent in the formation of the United States Steel Corp., in which he figured with such men as John D. Rockefeller, Andrew Carnegie, J. Pierpont Morgan, Henry C. Frick, John

W. Gates, William H. Moore, George W. Perkins, Norman B. Ream, Charles M. Schwab, James Gayley, Charles Steele, Percival Roberts, Jr., John D. Rockefeller, Jr., P. A. B. Widener, E. H. Gary, W. E. Corey and others. He was one of the leading instruments in creating this first billion-dollar enterprise.

Daniel G. Reid is one of the wonders of the stock market. Not quite as active as he once was, he is still a factor with which to reckon. He has stood in the financial forefront with men like Henry C. Frick, J. P. Morgan, Jacob H. Schiff, George F. Baker, William H. Moore, E. C. Converse and Francis L. Hines.

There were four in the Moore-Rock Island group—all dashing knights of the dollar—whose adventures would read like the voyages of Sinbad, the Sailor. They were Daniel G. Reid, W. B. Leeds and the Moore brothers. As for Reid and Leeds, they have been a modern Damon and Pythias since childhood. Both were born about 64 years ago in Richmond, Indiana, which was then a farming town of 4000 or 6000 inhabitants. "Dan" Reid lived on a farm, "Billie" Leeds in the town. "Dan" began his business career by sweeping out a bank, evenually becoming its president. "Billie" began as a rodman on the Pennsylvania Railroad, and climbed to the position of branch superintendent. As soon as $30 a ton duty was placed on tin plate, in 1891, these two young men swooped down upon the feeble tin-plate plants that had been fighting bankruptcy for twenty years and swept them altogether into a "tin-plate trust" before anyone had time to find out what was happening.

The tin-plate industry is one of the youngest branches of the steel trade. There was a small plant at Leeshburg as far back as 1872; but it was impossible to compete with Wales and make a fair profit. No tariff was levied on tin, and the supporters were influential in politics, and it was generally supposed that the making of it was a Welsh secret. Reid and Leeds resolved to make the experiment on a large scale. The day after the McKinley Tariff Bill was promulgated they ordered the machinery—costing a quarter of a million dollars—from Wales. A body of Welshmen came with the machinery; but they failed to make the new plant a success.

Reid and Leeds were not millionaires, and the failure was a cruel setback to them.

Then came the presidential campaign in 1892. Tin-plate was a national issue. Workmen paraded in Pittsburg wearing tin caps. Democrats claimed that campaign money was being used to start tin-plate work. The industry was thrown into the political cauldron. But the two young Indianians never weakened. They adapted their machinery to American raw materials; they set inventors to work; and in the end they remade the industry on American lines. In six years they had combined 278 mills into a $50,000,000 corporation and machinery was improved to such an extent that the Welsh tinmakers can go to school in Monnessen and Newcastle. Together with the Moore brothers, they received from Morgan $140,000,000 in Steel stock when the big corporation was formed. With this money, they at once bought control of the Rock Island Railroad, and have since been known as "the Rock Island Group."

Daniel G. Reid came very near being one of the leading organizers of the United States Steel Corporation. Since 1889 it had been known that Carnegie was willing to sell out his properties, as, at that time, he had unsuccessfully tried to persuade a syndicate of English investors to buy them. In 1899, just before the Frick-Carnegie suit, Judge William H. Moore, one of Chicago's most daring and adventuresome knight-errants of finance, made himself a power in the history of steel in this country by trying to do what Mr. Morgan accomplished two years later. For years Judge Moore and his brother had been able corporation lawyers, with stock market inclinations. They had come to the front as promoters on a gigantic scale. With cheerful indifference, they had made and lost millions. Having promoted the Diamond Match Co. they went down with it when it floundered, losing $4,000,000 or more. In a single year, by floating the National Biscuit Co. and the American Tin-Plate Co., they paid their debts and had millions left.

Had they been the owners of Aladdin's Lamp, the Moores could not have turned defeat into victory more magically. With the $10,000,000 of the American Tin Plate stock in their possession—their first steel money—they set out to make more steel conquests. In a year they had organized the American Steel Hoop and the National Steel Co., getting $5,000,000 each for the work. Then, elated with success, they rushed to Carnegie and offered him a million for a 90-day option on his share of the Carnegie Co. The death of Roswell P. Flower, one of the "bull" leaders of the New York Stock Exchange, put a stop to this deal.

When Daniel G. Reid of Reading, Biscuit, Can and Rock Island fame, was operating a tin-plate mill in Indiana during the early days before "trust," he was very popular with his men. One time a strike occurred at the plant, and the company imported a number of strike-breakers. The strikers, while not troublesome, managed to keep the strike-breakers from entering the plant, until the management got desperate. One day a special train stopped alongside of the plant and encouraged the strike-breakers. The officials and several deputies lined up between the train and the gates to protect the new men, so that they could get into the plant, and the strikers proved too strong and the line was broken. Mr. Reid is a large man, and he reached for a strike-breaker, threw him over his shoulder and got him inside the gates. Bending, he allowed the man to roll off his shoulder and got inside the gates. As he mopped his brow he turned to his erstwhile burden and said triumphantly: "Well, I got you in all right."

"Yes," grinned the man, "But you don't want me."

"Why not?"

"Because," said the man, as he made for the gate, "I am a striker."

Some years previous Mr. Reid was considered a likely person to arrange a copper merger. His effulgent, radiating, inspiring countenance was a decided bullish influence. That was before the war and after Wilson's election. It was regardless of forthcoming tariff or banking reforms, regardless of money stringency or any of the minor things which gave aid and comfort to the bears at that time. Without question, he would be one of the biggest factors in the market.

Copper circles were then all a-flutter over the interesting story that Daniel G. Reid, one of the biggest and gamest market operators of them all—with the possible exception of such men as Morgan, Frick and others who were only too willing to ally themselves with him—was to have a hand dealt him in the red metal. Copper is the greatest comer of the age and Reid looked like the greatest factor at that time in the market. The conjunction of the industry and the individual meant a great deal for both.

The biggest man at that time as today in the copper industry was John D. Ryan. John D. Ryan is closely allied with Standard Oil and has become one of the biggest financiers, both in and out of the field of copper, in the country. He had proven himself a great harmonizer of discordant elements in the copper industry. The solidarity of the copper industry today both national and international, is due largely to the constructive accomplishing genius of John D. Ryan. As the successor of Henry H. Rogers in the Amalgamated and the United Metals Selling Co., he has shown himself to be one of the greatest captains of industry which the age has developed. He has interested the biggest financiers in the possibility of the copper industry and they have shown themselves willing to join him in its exploitation.

A few years ago, Mr. Ryan brought the heads of the copper industry together in various convivial gatherings. He was looking a long way into the future when he was harmonizing the former dissenting heads of the copper era. He brought into those conferences for the first time W. E. Corey, former president of the United States Steel Corporation. Then Ryan led in the work of bringing representative and American copper producers into a conference with the Rothschilds in London to put needed curtailment in the production of copper. This was consummated, the esteemed Sherman Anti-Trust Law to the contrary notwithstanding, and nobody knows to this day just what took place—except the long-headed redoubtable John D. Ryan, who was the arch manipulator of the whole thing.

This led to the formation of an alliance between Reid and Ryan. Ryan had angled and at last landed Reid in the copper camp, along with W. E. Corey. Mr. Ryan became associated with Mr. Reid on the newly created Tobacco Products Co., which was formed with Mr. Reid at its head.

The new tobacco company was called the Reid-Frick company, Henry C. Frick, being connected with Mr. Reid in their newest enterprise. Reid is a very practical man. He has the reputation of getting at the meat of a business proposition as quickly as anyone. In this venture, he had more to do with finance than with manufacturing, and men of practical experience in tobacco saw to it that the business of the new company was properly expanded. Reid had a way of surrounding himself with such men in his industrial projects. He also had a way of appreciating them.

A friend was congratulating him upon the growth of the business of the American Can Co. Reid stopped him. "Why, said he, "Billie Graham did it all—all Moore and myself did was to back him." On the Tobacco Products Corporation directorate J. Horace Harding represented Frick. Francis L. Hine was the representative of the First National Bank interest. John D. Ryan represented himself and Percy A. Rockefeller.

It was after the oil and tobacco decision that President Taft, who was then in the executive chair, said that competition in the tobacco business would increase. The starting of the Tobacco Products Corporation partly made good the President's statement. But the tobacco field and especially the cigarette part of it was a vast one. Cigarettes are not any cheaper because of the new Reid combination. The matter, by the way, meant a lot to the American Can Co., though this is not generally appreciated, for the new tobacco combination was a large consumer of containers.

KING C. GILLETTE

King Camp Gillette started in business as a salesman. He became associated with William Painter, the inventive genius who devised a practical airtight bottle cap. Painter inspired him to invent something the sale of which would be assured. Something on the line of bottle caps, that would be used once and thrown away.

Gillette finally got his big idea. He fought a long up hill fight but his business is now at the peak of the mountain of success, and his own indomitable courage and persistence have been the decisive factors in the building up of the mighty industry he now controls.

KING C. GILLETTE

KING C. GILLETTE, inventor and "corporationist," was born at Fond du Lac, Wisconsin, January 5, 1855. This was the same town that a year and a half later gave the world E. L. Doheny, president of the Pan-American Oil & Transport Corporation and the Mexican Petroleum Co., discoverer of oil in Mexico, whose interests like those of Gillette, are world-wide.

In his early boyhood the family moved to Chicago, where the elder Gillette, who was something of an inventor, did moderately well until the great fire swept away all his earthly possessions. The boy received his education in the common school and began his career as a clerk in a hardware store. Hardware had always an attraction for him, and his keen interest in it qualified him as an expert. After two years in the Chicago store he secured employment in New York City, where he became well-known to the general trade, attracting the attention of a big concern whose headquarters were at Kansas City, Missouri. To this concern King Gillette was a genuine "find." By the time he was twenty-one he had earned his chance for a try-out as a traveling salesman. He was given the entire Western territory, and so phenomenally successful was he that he built up a trade such as the firm never before had. The business extended to such proportions that it was decided to establish an agency in England and Gillette was sent to London to establish and manage it.

King C. Gillette differed from other salesmen in that he spent his spare time in inventing things or trying to think of something to invent. He was beset with the idea that the only sure and speedy way to wealth was by means of some great invention, an idea inherited from his father. The Patent Office files record a story of great industry on the part of the Gillette family, but success was not at all commensurate with the outlay of effort and money.

In 1891, when Gillette was thirty-six years old, he came to the turning point in his career. He got a new job as traveling salesman for the Baltimore Seal Co.—a bottling company. At that time the bottling industry had reached such proportions that there was an insistent demand for something better than the ordinary cork-top bottles for beer, soda-water and carbonated beverages. A good many inventions were put upon the market, but none of them seemed to answer.

The first man to get on the right track of the right bottle was William Painter, once a farm boy in Maryland, with no capital except his own determined will. Painter devised a small rubber disc with a metal loop by which the disc was extracted, which when compressed into a groove in the neck of the bottle made a more or less effective closure for beer. But for carbonated beverages, which were put up under stronger pressure, it was a failure. The company backing the patent sank $50,000 trying to make a success of it. In the meantime, Painter had been hard at work trying to devise something that would be really satisfactory. In 1892 he was granted a patent on the Crown Seal, the familiar corrugated steel disc lined with cork which may be seen today on countless bottles the world over.

This was at last the right bottle seal and Painter knew it. All he needed now was bottles to affix them to. To hold a special type of bottle with an annular ring outside the mouth, a cap was required. To make such a "crazy" thing as a new type of container was scouted by bottle-makers. They simply declined! This is told because it has a special bearing upon Gillette's experiences with the razor. The great fact impressed on King's mind was that it is one thing to invent something the world needs and another thing to get the world to accept it after it is finished.

Meanwhile King C. Gillette had to earn his salary as salesman for the new-fangled bottle seal. Then along came a big brewery in St. Louis and another one in Milwaukee who were convinced of the value of the new seal. They placed immense orders for it and that brought the bottle factories to their senses. Then the great problem for Painter was to fill these orders. He put up one factory after another and worked them day and night at London, Hamburg, Paris, Yokohoma and the City of Mexico. Before he was hardly aware of it, royalties, at one cent a gross, aggregated $356,000 a year.

In the meantime Gillette and Painter had become great friends and Gillette was naturally taking in all that was going on. He vowed inwardly that he would invent something which would make Painter's income of a $1000 a day look like petty cash. Painter invited him to his home whenever he visited Baltimore and they would sit up talking until the early hours. Once Painter said to him:

"King, you are always thinking about inventions — always trying to invent something worth while. Why don't you invent something like the Crown Cork which, when once used, is thrown away, so that the public has to keep on coming back for more until the end of the chapter? For every new customer you get, you lay a permanent foundation for profit."

"That sounds easy, Mr. Painter, but how many things are there that everybody uses like corks and pins and needles?"

"You don't know, King. I don't know. Nobody knows. You may not strike anything like the cork. However, it certainly will do no harm to think about it."

That conversation kept impressing itself upon King's mind and during his travels over his territory he found it constantly reiterating.

Many mornings he had to leave his berth two hours ahead of time in order to be one of the first half dozen in the line to the mirror in order to shave. Like others he was compelled to hold up the line while he stropped his straight-edge razor, and if he chanced to be a few minutes late, the others likewise held him up.

Then, too, many a scratch or cut followed his efforts to get a clean shave on the rolling, rumbling train, and he often thought of the boom a safety razor of some kind would be. It was a genuine feat for the man who had to shave with two hands and try to maintain his equilibrium on a moving train.

So at last one historic day in 1895 the big idea dawned upon Gillette. He was then married and living in Brookline, Mass. His wife was away on a visit, and he prepared to shave himself. His razor was dull. His beard was like a wire brush, and that razor had not been honed for ages and there are limits beyond which a razor simply will not go. When Gillette was half through the operation he paused to rest and work up his courage to finish the operation.

At the very first stroke after he had resumed, the idea flashed into his mind. No longer would a razor be an instrument of torture but an appliance for shaving without the imminent peril of cutting the victim's throat. Such a tool would have a removable edge that could be thrown away when it became dull and a new one substituted. Gillette's plan was to protect the razor blade with a toothed guard which would hold the keen edge away from the skin. This idea materialized and then followed with a thin double-edged blade which would afford a traveler a sufficient number of shaves for an ordinary journey. The outfit was neat, compact, serviceable and a room saver. It did away with the annoyance of stropping and honing, and made it next to impossible to cut the most tender skin.

These razor blades would become articles of commerce that civilized man would keep on buying for the term of his natural life—precisely the type of invention to which Painter had urged him to devote his energy. There could be no doubt about it; the coveted fortune was right within his grasp at last!

Gillette stood before the mirror as in a trance. One by one the details of the safety razor assembled themselves in order. Before he laid that old-fashioned razor down a substitute had been so definitely outlined that it has never been changed in any material point. There are minor points in the general design that have been changed, for Gillette was neither a mechanic nor a draftsman.

When he got to Brookline, Gillette put on his hat and coat and hustled down to the hardware store on Washington Street, Boston, where he bought some pieces of brass, some steel ribbon, such as is used for clock springs, a small hand vise and file. With these materials he returned home and wrought laboriously the first safety razor. He made innumerable sketches of his design which was fortunate since these sketches served to establish the validity of the invention against litigation for infringement which many successful inventions encounter.

As Gillette filed away at that first model, taking off more skin from his thumb than metal from the material, ambitious dreams floated through his mind. He figured that the steel would cost next to nothing—sixteen cents a pound, which would make five hundred blades, retailing at $1.00 a dozen, or a total of $41.60.

But Gillette knew nothing whatever about steel. He knew much less about manufacturing. The steel suitable for razor blades had to be of a special quality, costing many times sixteen cents a pound. Eventually it cost the laboratory a quarter of a million dollars in tests to find the particular quality required.

He learned also that no device, however useful, can be manufactured by hand if it is to be sold in quantities at a reasonable cost. Machinery had to be developed demanding much time and money to secure automatic production and the money for financing this outlay is never easy to raise for a new venture.

When Gillette's model was finished he built a factory to get on with the work. As demonstrated the new safety razor was an immediate success. The first few which appeared in the market were eagerly bought up. But it dragged along for six weary years. Painter, until his own company was actually earning money, was devoting all his spare time and money trying to find the necessary capital and in experimenting with the blade steel. Gillette tried every cutlery machine shop in Boston and some in New York and Newark, to find someone who could harden and temper this steel so it would stay flat and not be warped by strain. Even the Massachusetts Institute of Technology tried to solve the problem.

Everybody advised the inventor to drop his idea. They believed that he was "stuck" on the razor blades—that is in getting the exact temper of steel necessary for them. They reminded him that razors had always been made by fashioning cast steel under the hammer to give it density so that it would take an edge. Razors would continue to be made in that way for all time.

But Gillette was obdurate and he declined this advice for he felt sure he had a good thing. But by this time he was forty-six years old and had saved no money. It was true he had made a fair living, but he had saved nothing. His savings had gone in experiments. The life of a traveling man after a quarter of a century on the road loses some of its novelty. So one day in 1901 a friend named Stewart volunteered the information that he thought he knew a man who might promote the new company. This man's name was Heilborn. He would need a new technical man, said Gillette, to perfect the blade. Without the blade they could do nothing. They could not even begin. Heilborn said he knew such a man and he was W. E. Nickerson, a graduate of the Massachusetts Institute of Technology, an exceptionally capable machinist, and a meeting was arranged at which Nickerson was present. Nickerson was employed by a manufacturer of scales but as all of his time was not occupied, he agreed to work on the razor, giving half of his time for a year if Gillette, Stewart and Heilborn would raise $5,000 and put it in the bank, half to be paid to him as salary, the other half to pay rent, purchase a few tools and other necesseraies. On this basis the bargain was clinched, and a corporation was formed. They started out to get the $5,000. Stewart and Heilborn were to sell shares enough to raise the necessary cash and they offered the stock at 5c on the dollar of its face value. After more than three months they succeeded in raising only a little more than half the capital agreed upon. Not until Gillette offered a substantial block of his own stock as inducement to a third party was the sum raised.

The "American Safety Razor Co." then was launched. This company rented one small room on the top floor of an inexpensive building where power was available. A work bench, a few tools were installed and Nickerson with a helper was placed in charge. They set to work to develop the safety razor for it must be borne in mind that Gillette had in fact contributed only an idea.

Nickerson was a genius. He had the mind to grasp intricate mechanism embodying hundreds of parts and accurately timed movements without drawing a line on paper until it was completed and operating. He produced processes and machines the first year which made the razor a commercial possibility. In arriving at this point the money was spent and the company was $12,000 in debt. All hands turned in to try and sell stock, but they could not sell a share at any price. Here and there a few razors had been made and distributed among friends for that was the only possible way to have them tried out. One of the men to whom Gillette gave a razor was John Joyce whom the little coterie hold in blessed memory. Gillette had been associated with Joyce in an unfortunate business venture and already owed him nearly $20,000.

The creditors of the American Safety Razor Co. were getting insistent—so much so that a meeting was held to consider ways and means to keep afloat. No one had any suggestion to offer and nothing seemed left but to call in the receiver. Gillette left the meeting with the "Glooms" tagging after him. As it happened he met Joyce, who invited him to lunch.

Joyce remarked upon King's worried look. He asked him, "What's the matter?"

King admitted that he was worried. He told him that he had had a meeting of the Razor company that morning and that they were at the end of their rope. To this doleful recital Joyce remarked that he had used the razor ever since it had been given to him and he was much pleased with it. If it was put on the market it ought to make money.

The lunch ended by Joyce agreeing to advance $60,000, and to take in exchange for this money bonds of the company at a discount of nearly half, with a block of stock as a bonus. He reserved the right, however, to cancel his offer if things did not go right. H proposed to make the offer immediately effective provided Gillette would call together his board of directors at once to pass the necessary votes and arrange for the bond issue.

Within an hour the board had been summoned by telephone, the formalities were completed and Gillette went to Joyce's office to report. He went away with a check in his pocket sufficient to pay the company's bills and enough to finance further experiments.

Joyce's assistance really assured the success of the enterprise. It cast out the evil spirit that had beset the razor company, for this money advanced by Joyce was the only outside capital the company has ever received. It has never borrowed a dollar since. The entire assets and the millions paid in dividends have come out of profits.

The fame of the new invention spread across the face of the globe. There were demands from every corner of the world to which American salesmen and tourists traveled and Gillette was overwhelmed with orders. The company was then being reorganized and Gillette had received a substantial block of the new stock. But the company was yet too poor to afford the luxury of a salaried president. Gillette had to hold his job as traveling salesman for Painter who was urging him to go to England to establish a factory there. It soon became evident that an immense capital would be required to market the invention in the quantities popular demand created. So Gillette sailed for London in January, 1904, nearly nine years after he had conceived the idea of the safety razor, and nearly three years after the first company had been organized.

From Gillette's primitive experiment has grown the gigantic razor business which has brought millions to its creator and associates. Safety razors were adopted everywhere and hordes of imitators sprang up. In every traveling kit one or more may be found today. Agencies are established in every city and town within the confines of civilization and if Gillette walked into Calcutta, Pekin, Petrogad or Omaha he would be immediately recognized from his facsimile photograph on the wrapper of every one of the millions of blades continually being broadcasted.

Gillette had been in America during the ten years preceding his establishment of a residence in London, and this decade was divided between the study of his razor and the bottling manufacturing business, in which he was still heavily interested. A year after his return from England, he married Miss Atlanta T. Gaines, daughter of Alauson Gaines, of Willoughby, Ohio, an influential and wealthy oil operator.

Gillette's first factory was erected at Boston, Mass. A second big factory was built in Canada. thus saving the heavy duties upon steel products. Manufacturing plants were next established in foreign cities until today there is a Gillette factory in nearly every country in the world where every article is manufactured from the pattern of the original, perfected and improved. In the spring of 1922 the company placed upon the market the new improved Gillette razor.

It was in 1904 the company outgrew its rented quarters and purchased its first factory building. The next spring the second building was started and paid for in full before it was completed. Even with the two plants running night and day it could not keep up with orders.

After that the story of the razor company was like a fairy tale. It was a real Yankee invention. Plants were enlarged, other factories were erected in Canada and England. New machinery was developed by Nickerson and his staff to double production and then further improvements increased capacity still more.

During the war the Government made a safety razor a part of the equipment of every soldier and sailor.

Today the company has assets of $28,217,000, and earns net profits that exceed $7,000,000 a year.

After the industry had become a worldwide organization, Gillette turned his attention to a world-wide corporation movement which he hoped would resemble the organization of which he was head. He believed that the wealth and industry of the entire world should be entrusted to the control of all the people who contributed to production and manufacture and though he disclaimed that it was socialism, communism or any other kind of "ism," he advocated a "world corporation by the people and for the people," and added the description, "an international corporation of all the people of the world for universal peace, the corporate acquisition of all property and control of all industry, applying corporate business methods to all human kind, making a great holding company to constitute a trusteeship of the people's wealth all over the world, and do away with the necessity of political government." He predicted that the directorate of this giganic corporation would be chosen by the people from their own kind and they would thus rule the world.

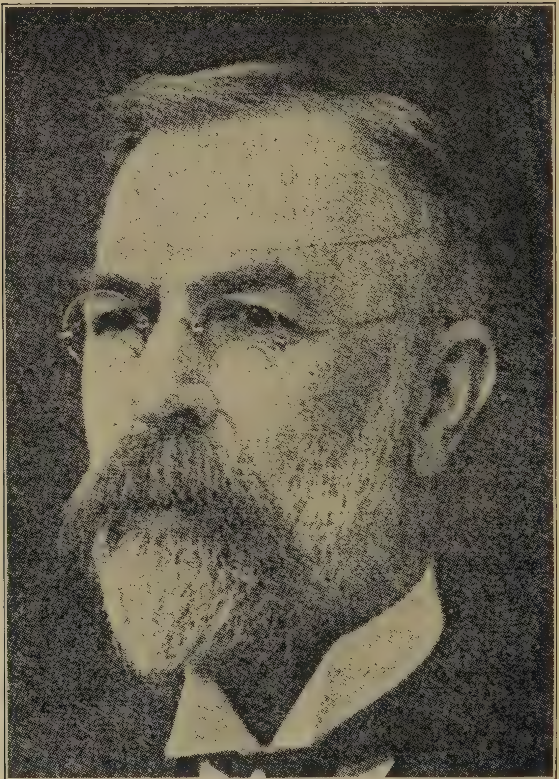
Gilette has one son, King George Gillette, two brothers who are well known in the scientific world as inventors, and two sisters. The family home is at Mirimar, Santa Monica, California. King Gillette travels all over the world.

It has often been remarked that such industries as Gillette, Eastman Kodak, Victor Talking Machine, etc., are in a class by themselves, because their sales are virtually continuous by replacements, i. e.—blade of the practically indestructible razor, films for the camera and records for the talking machine. All three of these products are generously advertised abroad, but it is the Gillette company's proud boast that their razor is the best known article of merchandise in Europe. Gillette agencies dot the civilized cities of the world, numbering in all approximately 250,000. The company has world-wide patents in the United States, Canada, Great Britain, France, Belgium, Holland, Denmark, Sweden, Norway, Germany, Austria, Italy, Spain, Portugal, Switzerland, Luxenburg, Poland, Russia, Czecho-Slovakia, Hungary, Roumania, Brazil, Ukraine, Uruguay, Australia, New Zealand, Philippine Islands, Japan, Hong Kong, India, South Africa, Cuba, Porto Rico, Virgin Islands, Mexico, Argentine, Chili and Jugo-Slavia.

At about the same time a comprehensive economy campaign was inaugurated. Through introducing better methods all around it is estimated that the company has saved more than one million dollars a year, all without detriment to manufacturing or sales. It might be queried why these highly desirable reforms were not instituted before. The answer is that only following upon recent economic changes has labor shown a degree of tractability warranting vigorous handling of the labor question. Many manufacturers during the war and since felt compelled on the ground of expediency to keep on the payroll men whose work was not up to standard, but the Gillette management had already obtained excellent results in its efforts to obtain and to reach pre-war conditions.

To such a large extent is the manufacture of Gillette razors and blades a mechanical process that with three times the output the company is today employing 500 fewer persons than in 1910 or 1,300 against 1,800 at that time. The installation of other already perfected machines, worked like the most of these now in use by the Gillette Co., the inventions of Director William E. Nickerson, is planned to have further effect upon the operations of the company.

The Gillette has no worries from dwindling demands or depreciated inventories. It is in excellent financial condition and has no requirements in sight calculated to call for public financing. As far as the plant is concerned the company has already made ample provisions for anticipated increases in sales. The Boston and Montreal plants together have a capacity of about 33,000,000 dozen per annum, or 50 to 60% more than current production.



SIDNEY W. WINSLOW

Sidney Wilmot Winslow was born into the shoe industry, his father having a small shoe factory where young Winslow worked for fourteen years. As a result he knew shoes, and he knew shoe machinery. He saw the advantages that could be obtained by consolidation of shoe machinery manufacturers and as a result he formed the mighty United Shoe Machinery Co., whose ramifications extend all over the world.

He has been called the "Czar of Footwear"—yet apart from his interests in the shoe business he showed his keen judgment as an important principal in the United States Smelting, Refining & Mining Co., and other varied interests.

SIDNEY W. WINSLOW

SIDNEY WILMOT WINSLOW, known as the "Czar of Footwear," was born in Salem, Massachusetts, in 1854. He learned about shoes and their manufacture in his father's primitive little factory. He made his first "stake" reorganizing the Beverly, Massachusetts, Gas Co., but early got into the business of making shoe machinery, shrewdly anticipating that the big profits were in machinery, not in output. He was educated in the Grammar and High Schools of Salem, in which city his father was engaged in shoe making, entering his father's factory after finishing his course. Here he remained for 14 years, until he became foreman of the stitching room.

While thus employed he became impressed with the vital importance of machinery in the development of the boot and shoe industry and especially with the serious disadvantages under which manufacturers labored because of the multiplicity of companies controlling the different machines for performing the various operations in making shoes. The economic waste of such competition was apparent. It spelled loss to both labor and capital.

In the early '70's, when Sidney W. Winslow first entered his father's shoe factory, the use of machinery in making shoes was in its infancy. The McKay Sewing Machine for attaching soles to uppers had only recently been introduced and most of the complicated and expensive machines now in general use had not been invented.

In the early days, as each new machine was invented, a company was organized to put it on the market until there were many small concerns, some of them doing a precarious business. Each manufacturer in equipping his factory was required to deal with several of these companies. He could not figure with certainty on deliveries of his machinery; strikes were frequent among the operators of one machine or another, to such an extent that some of the factories were shut down for part of every year. The industry was in danger of demoralization.

It was the practice of the makers of some, but not all, of the machines to employ agents to watch the operation of their machines in the factory. Where this was done by several companies, it involved wasteful duplication of effort. Where it was not the practice, it was found that through the failure of some one company to give prompt attention to the repairs of the particular machine which it controlled, the machines belonging to other companies were also forced to lie idle, so close is the inter-dependence of operations in the making of shoes.

Mr. Winslow's first venture in shoe machinery was in connection with the Naumkeag Buffing Machine, invented by his father, who was a man of decided inventive talent. He secured a controlling interest in this machine in 1883.

Subsequently he was attracted to the Hand Method Lasting Machine, invented by Jan E. Matzeliger, a shoe worker of Lynn, designed to perform a delicate operation which from the beginning of shoe making had always been done by hand.

After Matzeliger had secured a patent on his invention, he had neither the capital nor the business experience to make it commercially practical and although others became financially interested, it did not become a commercial success until Mr. Winslow in 1892, perceiving its possibilities, associated with himself men of organizing capacity and resources and put the enterprise on a paying basis.

In the meantime, other lasting machines had come on the market, each adapted especially for a particular type of shoe. All these various machines were gathered into the possession of the Consolidated McKay Lasting Machine Co., in the direction of whose affairs Mr. Winslow was especially active.

Machines for performing the various other operations in making shoes were still in the hands of separate companies, but one by one the smaller concerns went out of business until in 1899 the making of shoe machinery had centered in the hands of three substantial companies: The Consolidated & McKay Lasting Machine Co., the Goodyear Shoe Machine Co. and the McKay Shoe Machinery Co., each of which respectively made and leased machines to manufacturers, adapted to a particular class of operation and not competing with one another.

Through the initiative of Mr. Winslow, these companies were consolidated under the name of the United Shoe Machinery Co., with a directorate of leading New England and New York business men with Mr. Winslow as its president.

The United Shoe Machinery Co. is a corporation formed under the laws of New Jersey, February 7, 1899. The company acquired most of the large shoe machinery concerns in the United States, and auxiliary companies were formed in Canada, Great Britain, France and Germany. A branch office of the company was also established in Australia.

The operation of the United Shoe Machinery Co. has been very successful under one management. The company is producing more than 300 different machines used in the modern manufacture of shoes, giving employment to 5,000 employes housed in a model manufacturing plant at Beverly, Mass., containing over 21 acres of floor space.

The leasing system was originated by Gordon McKay shortly after the Civil War and perfected by the present company. While most of the machines made by the company can be bought outright, if the manufacturer prefers, under this system, the shoe manufacturer can lease a full line of machines performing every operation involved in the manufacture of shoes by the payment of a small royalty, averaging for two-thirds of the shoes made in the United States only, at 1 1/3 cents per pair.

The company employs a very efficient staff of machinists and inventors, constantly engaged in improving and perfecting the various machines, since it is obviously to the company's advantage to keep the very finest machines in the hands of its customers in working order, capable of turning out the largest number of perfect shoes possible.

On the other hand, the advantages to the shoe manufacturer are: No capital required to be invested in machinery; the privilege of using always the highest type of machines, having them kept in repair without expense to him, and the privilege of exchange for better machines whenever the company's experts were able to devise or perfect some improvement that would further simplify the process or reduce manufacturing costs. The public is likewise a gainer by this arrangement because it can purchase a more durable, more comfortable and better looking shoe at the lowest price possible.

In building up one of the greatest and best managed industrials, the humane side was not neglected by Mr. Winslow. The welfare work, which is prominent in present-day manufacturing enterprises, has been carried as far in the United Shoe Machinery factory at Beverly, Mass., as anywhere in the world. The treatment of its army of employes extends not only to their welfare while in actual employment, but to their outside recreation activities as well.

Sidney Wilmot Winslow conceived, planned, organized and controlled the Shoe Machinery Co. It made of him one of the greatest figures in industrial finance. The laborer in brogans and the millionaire shoe manufacturer alike paid him their tribute. Winslow and his associates sat on the boards of half the great banks and trust companies of Boston; Boston finances the New England shoe trade.

Sidney Wilmot Winslow was more like John D. Rockefeller than any other man now in American business. For tenacity, ambition and singleness of purpose, for intensity and reach; for the faculty to visualize a vast proposition in simplest terms; for the staying quality that watches, waits, bides its time and wears down opposition; for the sheer force that dominates men — for all these things Sidney W. Winslow was in remarkable measure a replica of the man who made Standard Oil.

"Sidney Winslow was always a bull on America," said one of his old associates. "Every American fortune is based on some perception of the possibilities of this country.

"He knows shoes and shoe machinery. He can see farther along the narrow lane than almost any other man, and he can see less outside that restricted sphere than most others.

"He is the most patient of men. He never hurries. When he has a big trade on, he will prolong negotiations for days and weeks; will sit up nights, work impossible hours, and literally wear out his opponent, finally winning by sheer superiority of physical force.

"He would encourage a quarrel or controversy in order to get information out of his enemies. He knows, like Carnegie, that two weeks will answer more questions and more letters than a dozen stenographers. He is a Czar in his own company; he dominates the board of directors as absolutely as E. H. Harriman always did because he has never yet encountered a man who could stand against him."

To understand the United Shoe Machinery Co.'s powers, it is necessary to glance at the history of invention in shoe machinery. From the beginning, inventors generally got little, where promoters have made great profits. Gordon McKay, who is largely looked upon as the father of shoe machinery, was only an exploiter of inventions. He got his start from the invention of Lyman R. Blake, which first patent was issued in 1858. Blake was a poor business man, McKay a business genius. Blake got one payment of $75,000 cash and a few royalties; McKay made himself the prince of shoe machinery and died worth $10,000,000.

McKay organized the McKay Shoe Machinery Co., and the Consolidated McKay Shoe Machinery Co., as holding companies evolved from many minor ones. He adopted the system of leasing rather than selling machinery and, in fact, employed nearly all the methods still characteristic of the business.

There are today two great processes of shoemaking by machinery — the McKay and the Goodyear. The McKay system is based on the Blake machine which sews the upper and sole together. In sewing by the McKay process the shoe is put over a horn, and the sewing is done on the inside of the upper. A McKay shoe is always recognized by the fact that the stitches are on the inside and leave a little ridge of thread there. In the Goodyear shoe, the sewing is on the outside of the upper and one can recognize the Goodyear shoe with the row of stitches along the outer edges of the sole. The Goodyear shoe is a more expensive process but produces a much better article, for it turns out all women's and men's fine shoes.

The Goodyear process is controlled by the Goodyear Shoe Machinery Co.; the McKay process by the two McKay companies. In time, another company, the Eppler, brought out a rival system to Goodyear process machinery. There were two companies which could provide McKay machinery, and two which could provide Goodyear.

The idea of consolidating these competitive elements appears to have originated with Sidney W. Winslow, who, associated with George W. Brown, secured control of the Consolidated Hand Method Lasting Co. In time, they managed to have this company taken into the McKay combination. Before long, the pushing Winslow became president of the Consolidated & McKay Co.

Then came the big plans for a combination. The Consolidated & McKay, under Winslow, built up a great surplus against the day of opportunity. They had always had money and rapidly gathered in less sagacious companies, until, in 1899, the Winslow interests were ready to carry out the plan to establish a trust. Thus the United Shoe Machinery Co. was born. The Goodyear, Eppler and two McKay companies each with its chain of subsidiaries were included at the outset, and it has garnered more and more companies since. A list of 67 subsidiaries was published at one time and the number was declared incomplete.

Sidney W. Winslow could have been an immensely powerful factor without his United Shoe Machinery Co. affiliations. With United Shoe he was a New England financial Colossus. The United Shoe Machinery Co. was the fountain head of his activities. He was ever since it inception one of the active heads of the United Smelting, Refining & Mining Co. and was, prior to the formation of that company as a holding proposition, one of the heads of the United States Mining Co. and of the United States Smelting Co.

It is not generally known that the late Henry H. Rogers once started in to invade Winslow's shoe machinery field, but he made but little headway. Although Rogers had behind him the millions of Standard Oil and was anxious to compete with the Shoe Machinery Co. he could never get a complete shoe machinery equipment lined up. He had to confess himself beaten, which is something that Henry H. Rogers did not like to do. The man who had successfully ousted Addicks from the gas field, had organized Amalgamated and had built up Standard Oil, had to retire from the shoe machinery field, his onslaught fully repulsed from behind the Winslow entrenchments.

In addition to the United Shoe and United Smelting interests, Mr. Winslow was identified with the United Fruit Co., incorporated in March, 1899. This company is chiefly engaged in the banana and shipping trade. It owns and controls at least 800 miles of railroad connections and its plantations are located in various countries. It owns more than 400,000 acres of land in Central America and the West Indies, over one-third of which is under cultivation. Its regular business requires a maximum ocean service of about 100 steamships. Incidentally the company owns a large sugar plantation in Cuba and controls also practically all the common stock of the Nipe Bay Co. having a large modern sugar plantation and factory at Preston, Ohio.

Mr. Winslow was married in 1877 to Miss Georgiana Buxton, of Peabody, Mass., and had two sons and two daughters. He was an art connoisseur and collector, an ardent follower of tennis, a capable chess player and was a member of numerous clubs.

In addition to being the president of the United Shoe Machinery Co. Mr. Winslow was also president of the United Shoe Machinery Corporation and the United Shoe Machinery Co. of Maine. He was treasurer of the Naumkeag Buffing Machine Co., president and director of the Beverly Gas & Electric Co., the Danvers Gas Light Co. and the Newburyport Gas & Electric Co., director of the First National Bank, Old Colony Trust Co. of Boston, Salem Gas Light Co. and the United States Smelting, Refining & Mining Co.

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